DSC-W150/W170

SERVICE MANUAL

LEVEL 2

Ver. 1.2 2009.06
Revision History

Internal memory ON BOARD

Revised-1

Replacement of the previously issued SERVICE MANUAL 9-852-296-32 with this manual.

Photo: DSC-W150/Silver

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Argentine Model
Brazilian Model
Thai Model
Japanese Model
Tourist Model

Link

SPECIFICATIONS	DISASSEMBLY	SCHEMATIC DIAGRAMS
MODEL INFORMATION TABLE	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAM	REPAIR PARTS LIST

- Precaution on Replacing the SY-194 Board

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL STILL CAMERA

DSC-W150/W170_L2
9-852-296-33

Sony EMCS Co.

2009F0500-1

Published by Kohda TEC

Cyber-shot

SPECIFICATIONS

Camera

[System]

Image device:
DSC-W170:
7.70 mm (1/2.3 type) color CCD, Primary color filter
DSC-W150:
7.18 mm (1/2.5 type) color CCD, Primary color filter

Total pixel number of camera:
DSC-W170:
Approx. 10.3 Megapixels
DSC-W150:
Approx. 8.3 Megapixels

Effective pixel number of camera:
DSC-W170:
Approx. 10.1 Megapixels
DSC-W150:
Approx. 8.1 Megapixels

Lens:
DSC-W170:
Carl Zeiss Vario-Tessar 5× zoom lens
f = 5 - 25 mm (28 - 140 mm (35 mm film equivalent)) F3.3(W) - 5.2(T)
DSC-W150:
Carl Zeiss Vario-Tessar 5× zoom lens
f = 5 - 25 mm (30 - 150 mm (35 mm film equivalent)) F3.3(W) - 5.2(T)

Exposure control: Automatic exposure, Scene Selection (10 modes)

White balance: Automatic, Daylight, Cloudy, Fluorescent 1,2,3, Incandescent, Flash

Underwater White Balance: Auto, Underwater 1,2, Flash

File format (DCF compliant):
Still images: Exif Ver. 2.21 JPEG compliant, DPOF compatible
Movies: MPEG1 compliant (Monaural)

Recording media: Internal Memory (approx. 15 MB), “Memory Stick Duo”

Flash:Flash range (ISO sensitivity (Recommended exposure Index) set to Auto): Approx. 0.2 to 4.2 m (7 7/8 inches to 13 feet 9 3/8 inches) (W)/approx. 0.5 to 2.7 m (1 foot 7 3/4 inches to 8 feet 10 3/8 inches) (T)

[Input and Output connectors]

Multi connector: Video output
Audio output (Monaural)
USB communication

USB communication: Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel: 6.7 cm (2.7 type) TFT drive

Total number of dots: 230 400 (960 × 240) dots

[Power, general]

Power: Rechargeable battery pack
NP-BG1, 3.6 V
NP-FG1 (not supplied), 3.6 V
AC-LS5K AC Adaptor (not supplied), 4.2 V

Power consumption (during shooting, LCD screen on): 1.0 W

Operating temperature: 0 to 40°C (32 to 104°F)

Storage temperature: –20 to +60°C (–4 to +140°F)

Dimensions: 93.7 × 58.0 × 24.0 mm (3 3/4 × 2 3/8 × 31/32 inches) (W/H/D, excluding protrusions)

Mass: Approx. 175 g (6.2 oz) (including NP-BG1 battery pack, strap, etc.)

Microphone: Monaural

Speaker: Monaural

Exif Print: Compatible

PRINT Image Matching III: Compatible

PictBridge: Compatible

BC-CSGB/BC-CSGC battery charger

Power requirements: AC 100 V to 240 V, 50/60 Hz, 2.6 W (BC-CSGB)/2 W (BC-CSGC)

Output voltage: DC 4.2 V, 0.25 A

Operating temperature: 0 to 40°C (32 to 104°F)

Storage temperature: –20 to +60°C (–4 to +140°F)

Dimensions: Approx. 62 × 24 × 91 mm (2 1/2 × 31/32 × 3 5/8 inches) (W/H/D)

Mass: Approx. 75 g (2.7 oz)

Rechargeable battery pack NP-BG1

Used battery: Lithium-ion battery

Maximum voltage: DC 4.2 V

Nominal voltage: DC 3.6 V

Capacity: 3.4 Wh (960 mAh)

Design and specifications are subject to change without notice.

Ver. 1.1 2008.05

The changed portions from
Ver. 1.0 are shown in blue.

Model information table

Model	DSC-W150	DSC-W170
Destination	US, CND, AEP, UK, E, AUS, HK, CH, KR, AR, BR, TH, JE	US, CND, AEP, UK, E, AUS, HK, CH, KR, AR, BR, TH, J
CD board	CD-732	CD-733

- Abbreviation

  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model
  TH : Thai model

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   • Keep the temperature of the soldering iron around 270˚C during repairing.
   • Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   • Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

LF : LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

サービス，点検時には次のことにご注意下さい。

1. 注意事項をお守りください。
   サービスのとき特に注意を要する個所については，キャビネット，シャーシ，部品などにラベルや捺印で注意事項を表示しています。これらの注意書き及び取扱説明書等の注意事項を必ずお守り下さい。
2. 指定部品のご使用を
   セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は，使用されていたものと同じ特性の部品を使用して下さい。特に回路図，部品表に⚠印で指定されている安全上重要な部品は必ず指定のものをご使用下さい。
3. 部品の取付けや配線の引きまわしはもとどおりに
   安全上，チューブやテープなどの絶縁材料を使用したり，プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパによって発熱部品や高圧部品に接近しないよう配慮されていますので，これらは必ずもとどおりにして下さい。
4. サービス後は安全点検を
   サービスのために取外したネジ，部品，配線がもとどおりになっているか，またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し，安全性が確保されていることを確認して下さい。
5. チップ部品交換時の注意
   - 取外した部品は再使用しないで下さい。
   - タンタルコンデンサのマイナス側は熱に弱いため交換時は注意して下さい。
6. フレキシブルプリント基板の取扱いについて
   - コテ先温度を270℃前後にして行なって下さい。
   - 同一パターンに何度もコテ先を当てないで下さい。（3回以内）
   - パターンに力が加わらないよう注意して下さい。
7. 無鉛半田について
   無鉛半田を使用している基板には，無鉛（Lead Free）を意味するレッドフリーマークがプリントされています。
   （注意：基板サイズによっては，無鉛半田を使用していてもレッドフリーマークがプリントされていないものがあります）
   LF：レッドフリーマーク
   無鉛半田には，以下の特性があります。
   - 融点が従来の半田よりも約40℃高い。
     従来の半田こてをそのまま使用することは可能ですが，少し長めにこてを当てる必要があります。
     温度調節機能のついた半田こてを使用する場合，約350℃に設定して下さい。
     注意：半田こてを長く当てすぎると，基板のパターン（銅箔）がはがれてしまうことがありますので，注意して下さい。
   - 粘性が強い
     従来の半田よりも粘性が強いため，IC端子などが半田ブリッジしないように注意して下さい。
   - 従来の半田と混ぜて使用可能
     無鉛半田には無鉛半田を追加するのが最適ですが，従来の半田を追加しても構いません。

1. SERVICE NOTE

1-1. PRECAUTION ON REPLACING THE SY-194 BOARD

DESTINATION DATA

When you replace to the repairing board, the written destination data of repairing board also might be changed to original setting.
Refer to Service Manual ADJ, and perform “DESTINATION DATA WRITE”.

USB SERIAL No.

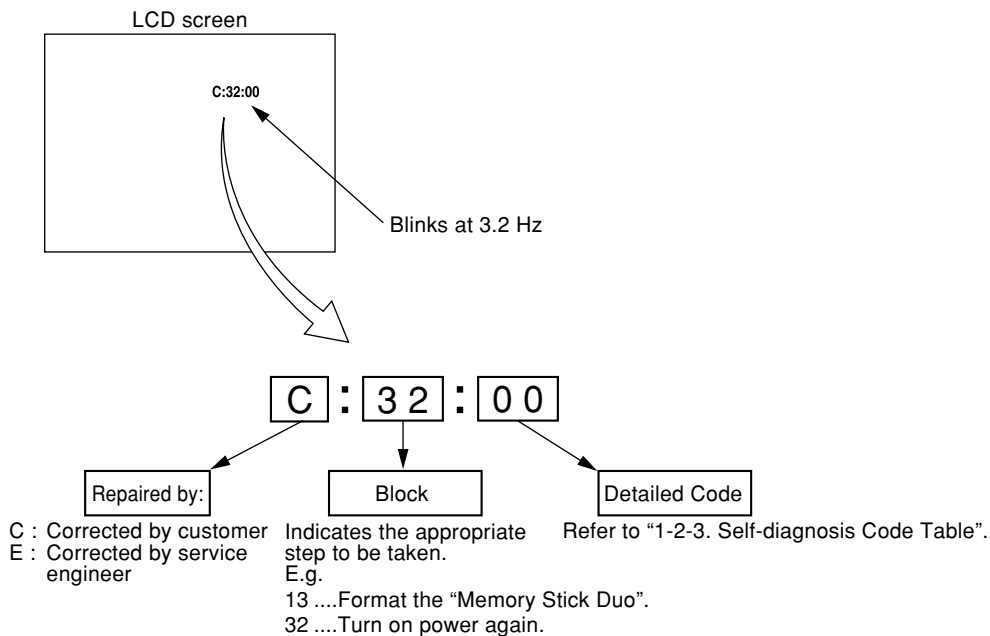
The set is shipped with a unique ID (USB Serial No.) written in it.
This ID has not been written in a new board for service, and therefore it must be entered after the board replacement.
Refer to Service Manual ADJ, and perform “USB SERIAL No. INPUT”.

1-2. SELF-DIAGNOSIS FUNCTION

1-2-1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the LCD screen what to do.
Details of the self-diagnosis functions are provided in the Instruction manual.

1-2-2. Self-diagnosis Display

When problems occur while the unit is operating, the LCD screen shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.

1-2-3. Self-diagnosis Code Table

Self-diagnosis Code			Symptom/State	Correction
Repaired by:	Block Function	Detailed Code		
C	1 3	0 1	The internal memory has experienced a format error.	Format the internal memory.
			"Memory Stick Duo" is unformatted.	Format the "Memory Stick Duo".
			"Memory Stick Duo" is broken.	Insert a new "Memory Stick Duo".
			"Memory Stick Duo" type error	Insert a supported "Memory Stick Duo".
			The camera cannot read or write data on the "Memory Stick Duo".	Turn the power off and on again, or taking out and inserting the "Memory Stick Duo" several times.
C	3 2	0 1	Trouble with hardware	Turn the power off and on again.
E	6 1	0 0	Difficult to adjust focus (Cannot initialize focus)	Retry turn the power on by the power switch. If it does not recover, check the focus reset sensor of lens block (pin ㊼ of CN401 on the SY-194 board). If it is OK, check the focus motor drive IC (IC401 on the SY-194 board).
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Retry turn the power on by the power switch. Check the zoom reset sensor of lens block (pin ㊿ of CN401 on the SY-194 board) when zooming is performed when the zoom button is operated. If it is OK, check the zoom motor drive IC (IC401 on the SY-194 board).
E	6 2	0 2	Abnormality of IC for steadyshot.	Check or replacement of the IC for steadyshot (IC503 on the SY-194 board).
E	6 2	1 0	Lens initializing failure.	Check or replacement of the IC for steadyshot (IC503 on the SY-194 board).
E	6 2	1 1	Lens overheating (PITCH).	Check the HALL element (PITCH) of optical image stabilizer (pin ⑰, ⑲ of CN401 on the SY-194 board). If it is OK, check PITCH angular velocity sensor (SE502 on the SY-194 board) peripheral circuits.
E	6 2	1 2	Lens overheating (YAW).	Check the HALL element (YAW) of optical image stabilizer (pin ⑩, ⑫ of CN401 on the SY-194 board). If it is OK, check YAW angular velocity sensor (SE501 on the SY-194 board) peripheral circuits.
E	6 2	2 0	Abnormality of thermistor.	Check the OIS temp sensor of optical image stabilizer (pin ⑮ of CN401 on the SY-194 board).
E	9 1	0 1	Abnormality when flash is being charged.	Checking of flash unit or replacement of flash unit. (Note)
E	9 2	0 0	Non-standard battery is used.	Use the compatible battery only.

Note: After repair, be sure to perform "1-3. PROCESS AFTER FIXING FLASH ERROR".

1-3. PROCESS AFTER FIXING FLASH ERROR

When “FLASH error” (Self-diagnosis Code E : 91 : 01) occurs, to prevent any abnormal situation caused by high voltage, setting of the flash is changed automatically to disabling charge and flash setting.
After fixing, this setting needs to be deactivated. Flash error code can be initialized by the operations on the HOME screen.

Method for Initializing the Flash Error Code

Initialize

Initializes the setting to the default setting. Even if you execute this function, the images stored in the internal memory are retained.

① Select [Initialize] with ▲/▼ on the control button, then press ●.
The message “Reset to default settings” appears.

② Select [OK] with ▲, then press ●.
The settings are reset to the default setting.

To cancel initializing

Select [Cancel] in step ②, then press ●.

- Be sure not to power off the camera while initializing.

1-4. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

The data can be copied/erased by the operations on the HOME screen. (When erasing the data, execute formatting the internal memory.)

Note 1: When replacing the SY-194 board, erase the data in internal memory of the board before replacement.
Note 2: When replacing the SY-194 board, execute formatting and initialize the internal memory after replacement.

Method for Copying the Data in Internal Memory

Copy

Copies all images in the internal memory to a “Memory Stick Duo”.

① Insert a “Memory Stick Duo” having sufficient free capacity.

② Select [Copy] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be copied” appears.

③ Select [OK] with ▲, then press ●.
Copying starts.

To cancel copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- You cannot select images to copy.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the “Memory Stick Duo” after copying, then format the internal memory ([Format] in [Internal Memory Tool]).
- A new folder is created on the “Memory Stick Duo” and all the data will be copied to it. You cannot choose a specific folder and copy images to it.
- The DPOF (Print order) marks on the images are not copied.

Method for Formatting the Internal Memory

This item does not appear when a “Memory Stick Duo” is inserted in the camera.

Format

Formats the internal memory.

- Note that formatting permanently erases all data in the internal memory, including even protected images.

① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be erased” appears.

② Select [OK] with ▲, then press ●.
Formatting starts.

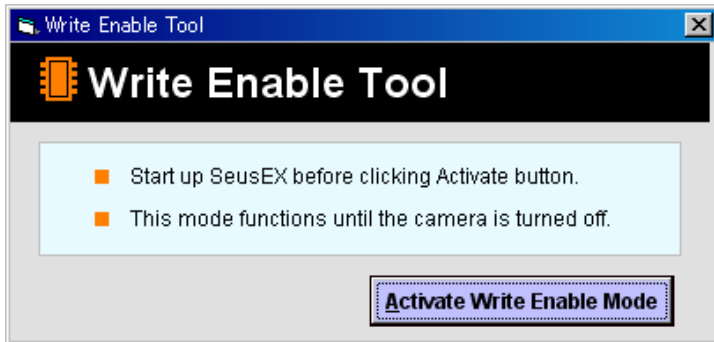
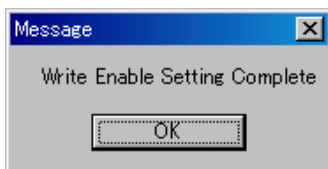
To cancel formatting

Select [Cancel] in step ②, then press ●.

1-5. HOW TO WRITE DATA TO INTERNAL MEMORY

Usually, the camera has been set so as to disable the data writing from the PC to the internal memory of the camera.
This setting must be changed temporarily when the data is to be written to the internal memory such as a case after the board replacement.
To change the setting, use the write enable tool "WriteEnableTool.exe".

Data writing method

1) Connect the PC to the camera (USB mode: Mass Storage), and switch the driver to the "Sony Seus USB Driver".
2) Start the Write Enable Tool and the SeusEX.
3) Click the Activate Write Enable Mode button of the Write Enable Tool.

4) Upon completion of the setting change, the following message will be displayed.

5) Return the driver to the original one, and connect the PC to the camera (USB mode: Mass Storage).
6) Write the data read out into the PC to the internal memory of the camera.
7) Disconnect the PC from the camera, and turn off the camera.

Note: By turning off the camera, the write enable setting is reset.

ENGLISH JAPANESE

1. SERVICE NOTE

1-1. SY-194基板交換時の注意

仕向けデータ

補修用基板と交換する時，補修用基板に書かれている仕向けデータは元の設定と違っている場合があります。
ADJ編を参照して，「DESTINATION DATA WRITE」を行ってください。

USBシリアルNo.

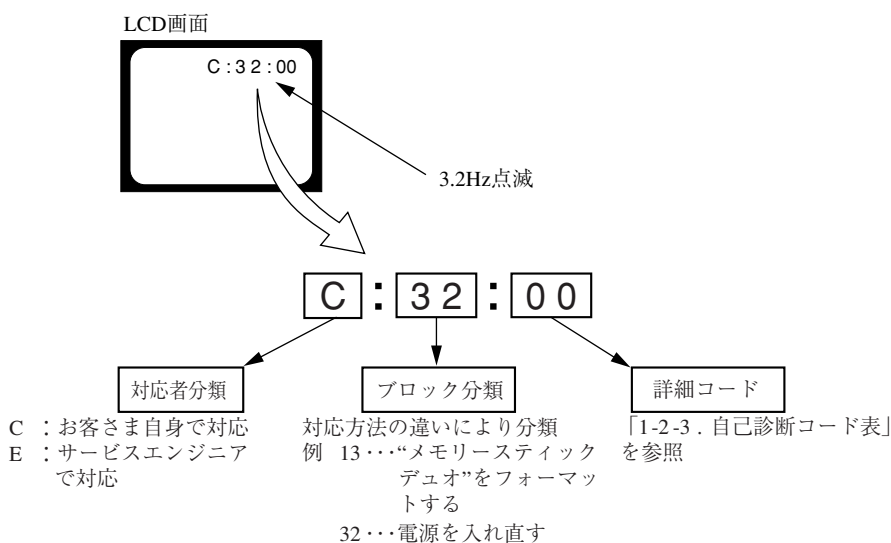
セットは，1台毎に異なる固有のID（USB Serial No.）を書き込んだ後，出荷されています。
新品の補修用基板には，このIDが書き込まれていないので，基板交換後にIDを入力する必要があります。
ADJ編を参照して，「USB SERIAL No. INPUT」を行ってください。

1-2. 自己診断機能

1-2-1. 自己診断機能について

本機の動作に不具合が生じたとき，自己診断機能が働き，LCD画面に，どう処置したらよいか判断できる表示を行います。自己診断機能については取扱説明書にも掲載されています。

1-2-2. 自己診断表示

本機の動作に不具合が生じたとき，LCD画面にアルファベットと4桁の数字が表示され，3.2Hzで点滅します。この5文字の表示によって対応者分類および不具合の生じたブロックの分類，不具合の詳細コードを示します。

1-2-3. 自己診断コード表

自己診断コード					症状／状態	対応／方法
対応者	ブロック機能		詳細コード			
C	1	3	0	1	内蔵メモリにフォーマットエラーがあった。	内蔵メモリをフォーマットする。
					フォーマットしていない“メモリースティック デュオ”を入れた。	“メモリースティック デュオ”をフォーマットする。
					“メモリースティック デュオ”が壊れている。	新しい“メモリースティック デュオ”に交換する。
					“メモリースティック デュオ”のタイプエラーを検出した。	規格内の“メモリースティック デュオ”を挿入する。
					“メモリースティック デュオ”が読み／書きできない。	電源の入れ直し，または“メモリースティック デュオ”の挿し／外しを数回試す。
C	3	2	0	1	ハードウェアトラブルを検出した。	電源を入れ直す。
E	6	1	0	0	フォーカスが合いにくい。 （フォーカスの初期化ができない）	操作スイッチの電源を入れ直す。 復帰しない場合はレンズブロックのフォーカスリセットセンサ（SY-194基板CN401 ㊼ピン）を点検する。異常なければフォーカスモータ駆動IC（SY-194基板IC401）を点検する。
E	6	1	1	0	ズーム動作の異常。 （ズームレンズの初期化ができない）	操作スイッチの電源を入れ直す。 ズームボタンを操作したときにズーム動作をすればレンズブロックのズームリセットセンサ（SY-194基板CN401 ㊿ピン）を点検する。異常なければズームモータ駆動IC（SY-194基板IC401）を点検する。
E	6	2	0	2	手振れ補正用ICの異常。	手振れ補正用IC（SY-194基板IC503）を点検または交換する。
E	6	2	1	0	手振れ補正用ICの異常。 （レンズ初期化異常）	手振れ補正用IC（SY-194基板IC503）を点検または交換する。
E	6	2	1	1	レンズオーバーヒート（PITCH）	光学手振れ補正ブロックのホール素子（PITCH）（SY-194基板CN401 ⑰，⑲ピン）を点検する。異常なければPITCH角速度センサ（SY-194基板SE502）周辺の回路を点検する。
E	6	2	1	2	レンズオーバーヒート（YAW）	光学手振れ補正ブロックのホール素子（YAW）（SY-194基板CN401 ⑩，⑫ピン）を点検する。異常なければYAW角速度センサ（SY-194基板SE501）周辺の回路を点検する。
E	6	2	2	0	サーミスタの異常。	光学手振れ補正ブロックの温度センサ（SY-194基板CN401 ⑮ピン）を点検する。
E	9	1	0	1	フラッシュの充電異常。	フラッシュユニットを点検または交換する。（Note）
E	9	2	0	0	規定外の充電池が使用された。	規定の充電池を使用する。

Note：交換後は，必ず「1-3. フラッシュエラー発生時の対処法」を行って下さい。

1-3.　フラッシュエラー発生時の対処法

本機はフラッシュエラー（自己診断コードE：91：01）が発生した場合，高電圧による異常を防止するために自動的にフラッシュ充電および発光禁止の設定になります。
フラッシュエラー発生後はエラーの解除を行う必要があります。エラーの解除はホーム画面から初期化操作を実行することにより行います。

設定リセット

お買い上げ時の設定に戻します。
[設定リセット]を実行しても、内蔵メモリーに記録されている画像は削除されません。

① コントロールボタンの▲/▼で[設定リセット]を選び、中央の●を押す。
「全ての設定内容をリセットします」というメッセージが表示される。
② ▲で[実行]を選び、中央の●を押す。
設定リセットが実行される。

設定リセットを中止するには

手順②で、[キャンセル]を選び、中央の●を押す。

• 設定リセット中は電源が切れないようにご注意ください。

1-4.　内蔵メモリのデータコピーおよび消去方法

内蔵メモリのデータコピーまたは消去はホーム画面の操作から実行可能です。（消去する場合は内蔵メモリの初期化を行います。）

Note1：SY-194基板交換の際は，基板交換前に内蔵メモリのデータを消去して下さい。
Note2：SY-194基板交換の際は，基板交換後に内蔵メモリのフォーマットおよび初期化を実行して下さい。

内蔵メモリのコピー方法

コピー

内蔵メモリーに記録した画像を、“メモリースティック デュオ”に一括コピーします。

① 充分な空き容量のある“メモリースティック デュオ”を本体に入れる。
② コントロールボタンの▲/▼で[コピー]を選び、中央の●を押す。
「内蔵メモリーのデータがすべてコピーされます」というメッセージが表示される。
③ ▲で[実行]を選び、中央の●を押す。
コピーが実行される。

コピーを中止するには

手順③で、[キャンセル]を選び、中央の●を押す。

• 充分に充電したバッテリーをご使用ください。残量の少ないバッテリーを使用して画像ファイルをコピーすると、バッテリー切れのためデータを転送できなかったり、データを破損するおそれがあります。
• 画像ごとのコピーはできません。
• データをコピーしても、内蔵メモリー内のデータは削除されません。内蔵メモリーの内容を消去するには、コピー後に“メモリースティック デュオ”を本体から取りはずし、[内蔵メモリーツール]の[フォーマット]を行ってください。
• データをコピーすると“メモリースティック デュオ”内に新しいフォルダが作成されます。コピー先のフォルダを指定することはできません。
• データのコピーを行っても、DPOF(プリント予約)マークの設定はコピーされません。

内蔵メモリのフォーマット方法

“メモリースティック デュオ”が本機に入っている場合は表示されません。

フォーマット

内蔵メモリーの管理領域をフォーマット(初期化)します。

• フォーマットすると、プロテクトしてある画像も含めて、すべてのデータが消去され、元に戻せません。

① コントロールボタンの▲/▼で[フォーマット]を選び、中央の●を押す。
「内蔵メモリーのデータがすべて消去されます」というメッセージが表示される。
② ▲で[実行]を選び、中央の●を押す。
フォーマットが実行される。

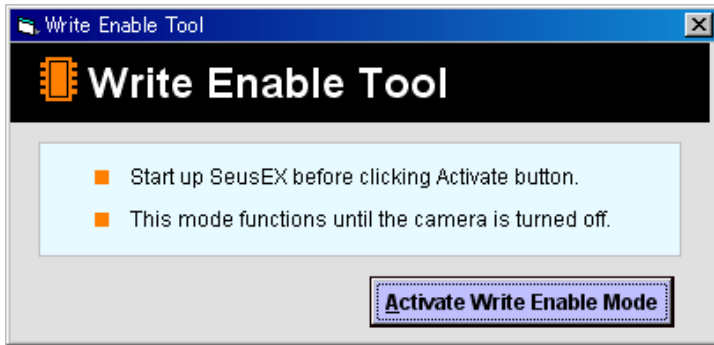
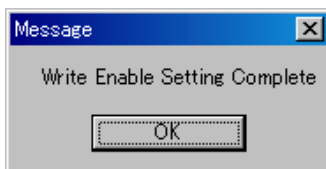
フォーマットを中止するには

手順②で、[キャンセル]を選び、中央の●を押す。

1-5. 内蔵メモリへデータを書き戻す方法

通常は，PCからカメラの内蔵メモリへデータを書き込むことはできない設定になっています。
基板交換後などに，内蔵メモリへデータを書き戻す場合には，この設定を一時的に変更する必要があります。
設定の変更には，書き込み許可ツール（WriteEnableTool.exe）を使用します。

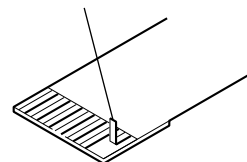
書き戻し方法

1) カメラとPCをマスストレージ接続し，ドライバを“Sony Seus USB Driver”に切り替える。
2) 書き込み許可ツールとSeusEXを起動する。
3) 書き込み許可ツールの Activate Write Enable Mode ボタンをクリックする。

4) 設定の変更が終了すると，次のメッセージが表示されます。

5) ドライバを元に戻して、カメラとPCをマスストレージ接続する。
6) PCに読み出しておいたデータをカメラの内蔵メモリに書き込む。
7) カメラとPCの接続を解除し，カメラの電源をOFFにする。

注意： カメラの電源をOFFにすることにより，書き込み許可の設定が解除されます。

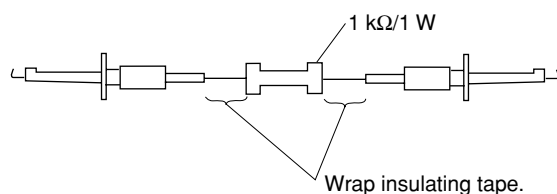
NOTE FOR REPAIR

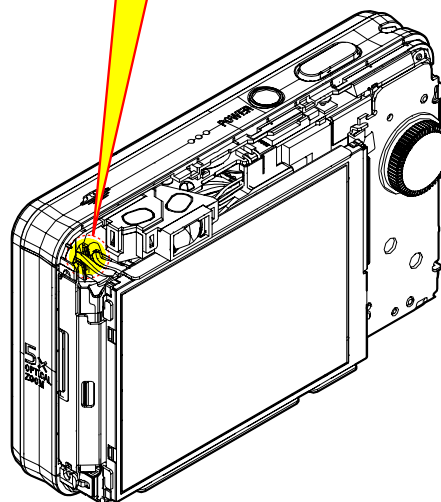
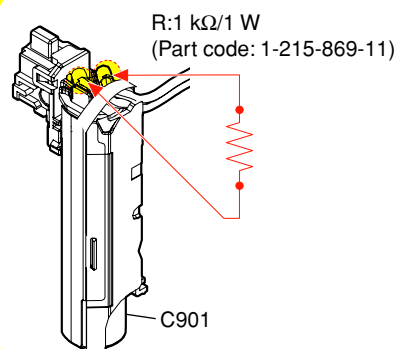
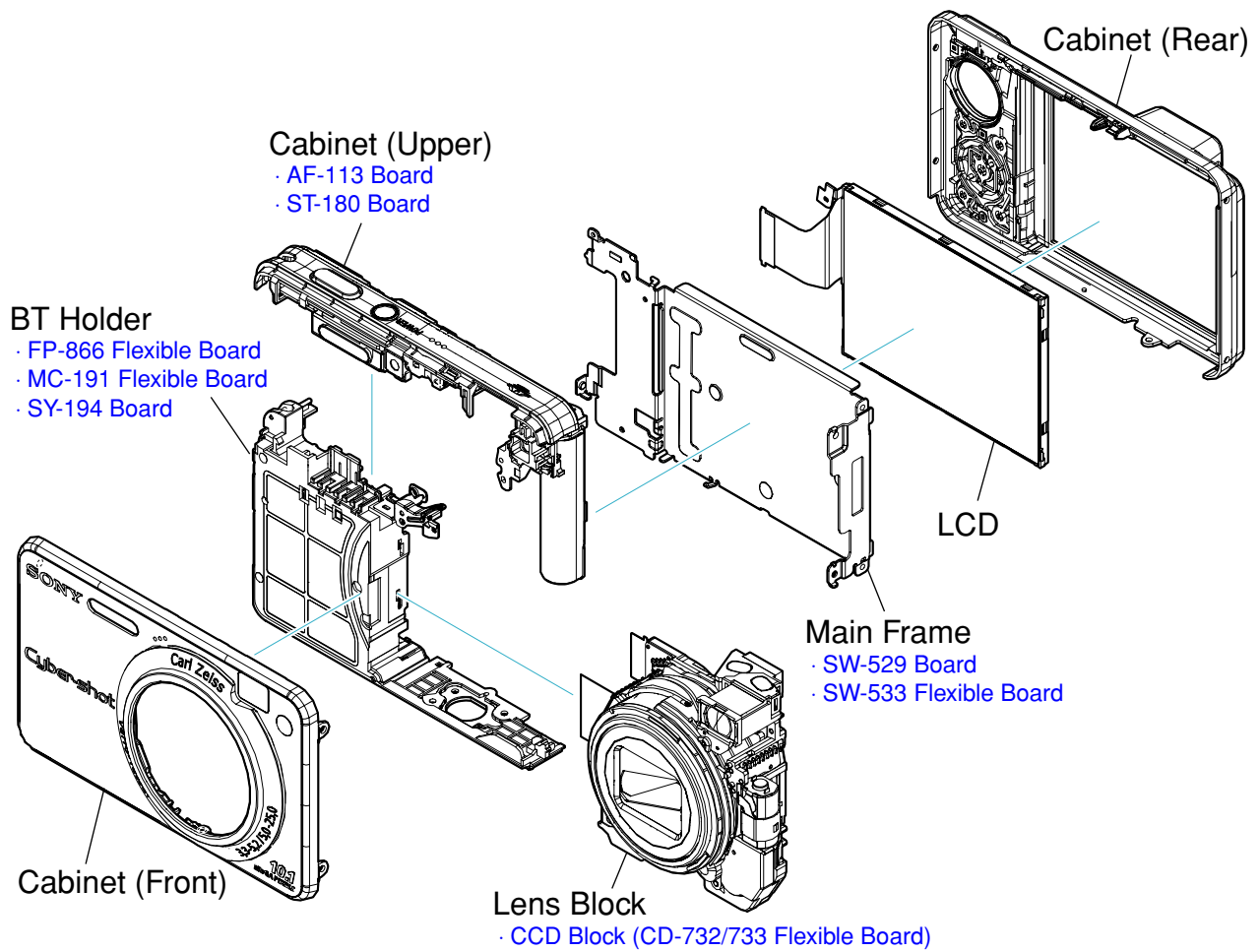
- Make sure that the flat cable and flexible board are not cracked of bent at the terminal.
  Do not insert the cable insufficiently nor crookedly.
- When remove a connector, don't pull at wire of connector. It is possible that a wire is snapped.
- When installing a connector, don't press down at wire of connector.
  It is possible that a wire is snapped.
- Do not apply excessive load to the gilded flexible board.

Cut and remove the part of gilt which comes off at the point.
(Be careful or some pieces of gilt may be left inside)

DISCHARGING OF THE CHARGING CAPACITOR (C901)

The charging capacitor (C901) is charged up to the maximum 300 V potential.
There is a danger of electric shock by this high voltage when the capacitor is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the unit is simply turned off. Therefore, the remaining voltage must be discharged as described below.

Preparing the Short Jig

To preparing the short jig, a small clip is attached to each end of a resistor of 1 kΩ /1 W (1-215-869-11).
Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.

Note: High-voltage cautions

Discharging the Capacitor
Short-circuit between two points with the short jig about 10 seconds.

2-1. IDENTIFYING PARTS

- DISASSEMBLY FLOW -

2-2-1. CABINET SECTION
- Cabinet (Rear)
- Cabinet (Front)

2-2-2. MAIN FRAME SECTION
- LCD
- Lens Block

2-2-3. BT HOLDER SECTION
- Cabinet (Upper)
- SY-194 Board

EXPLODED VIEW HARDWARE LIST

2-2. DISASSEMBLY

2-2-1. CABINET SECTION

Follow the disassembly in the numerical order given.
① Cabinet (Rear) (①-1 to ①-4)
② Cabinet (Front) (②-1 to ②-6)

Note: High-voltage cautions

Discharging the Capacitor
Short-circuit between two points
with the short jig about 10 seconds.

R:1 kΩ/1 W
(Part code: 1-215-869-11)

C901

① Cabinet (Rear)
①-2 (#20)
HELP 1
①-4
(Boss)
①-3 (#20)
①-1 (#20)
②-1
②-6 (#20)
② Cabinet (Front)
②-3 (#20)
②-4 (#3)
②-5 (#20)
②-2
Main Frame Section
(See page 2-4)

2-2-2. MAIN FRAME SECTION

Follow the disassembly in the numerical order given.
① LCD (①-1 to ①-13)
② Lens Block (②-1 to ②-11)

HARDWARE LIST

① LCD
①-8 (Solder)
①-7
①-11
HELP 2
①-5
①-4
①-3 (Claw)
①-10 (Claw)
①-6
①-9 (Claw)
①-13 (Claw)
①-12 (Claw)
①-2
①-1
(#20)
②-4
HELP 3
②-2
②-9
②-10
BT Holder Section
(See page 2-5)
②-11
②-1 (#20)
②-3
HELP 3
②-7 (Boss)
②-6
HELP 3
②-5 (Claw)
②-8
HELP 3
② Lens Block

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2-2-3. BT HOLDER SECTION

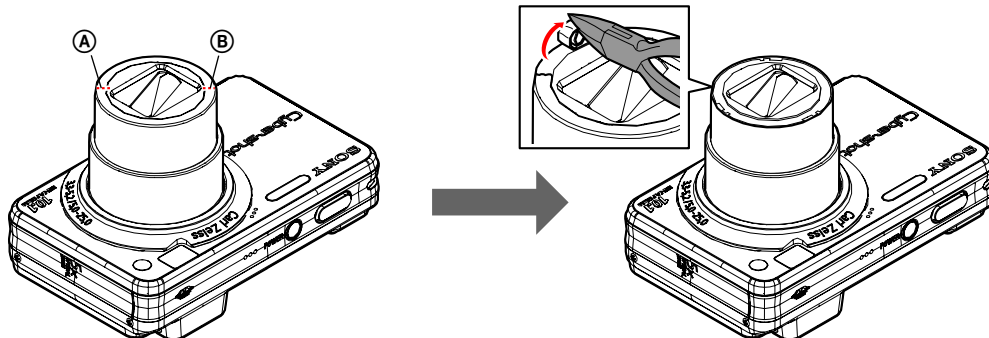
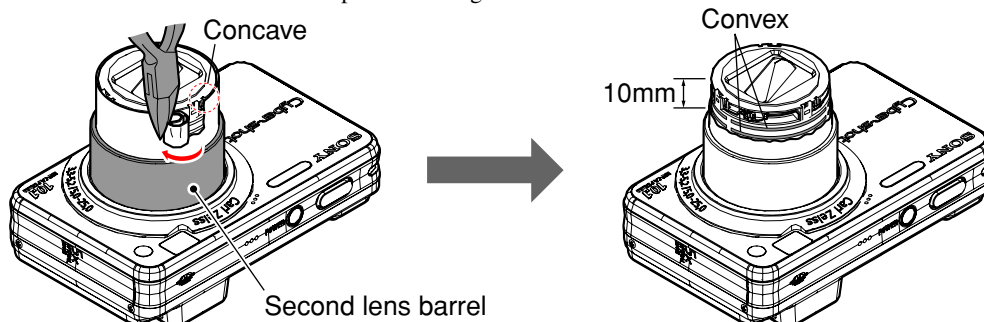
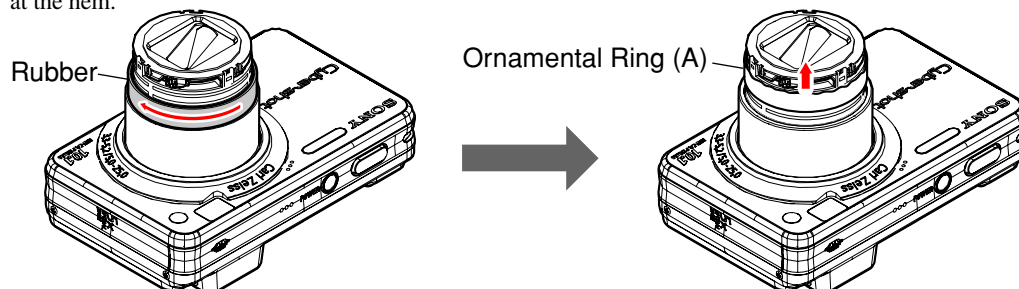
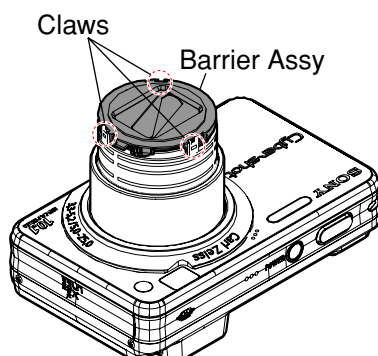
Follow the disassembly in the numerical order given.

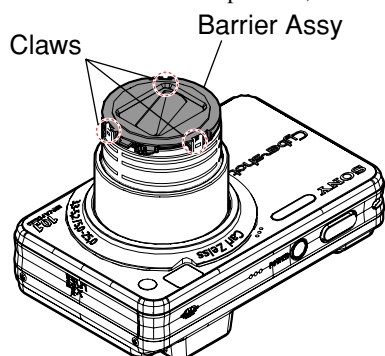
① Cabinet (Upper) (①-1 to ①-5)
② SY-194 Board (②-1 to ②-5)

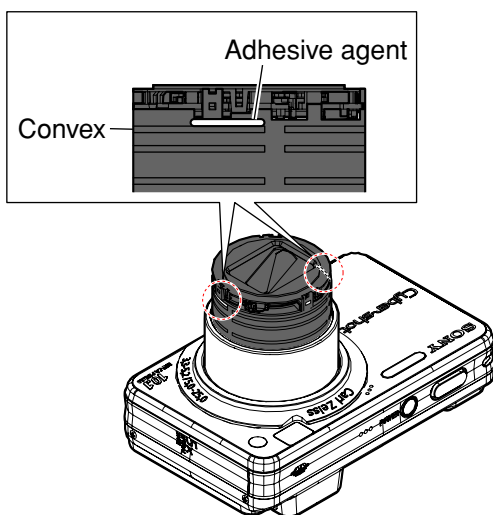
②SY-194 Board
①-1
①Cabinet (Upper)
HELP 4
HELP 5
①-5
②-5
(Solder)
②-1
(#3)
②-2 (Claw)
①-4 (Claw)
HELP 6
①-3 (Claw)
①-2
(#20)
HELP 7
②-3 (Claw)
②-4

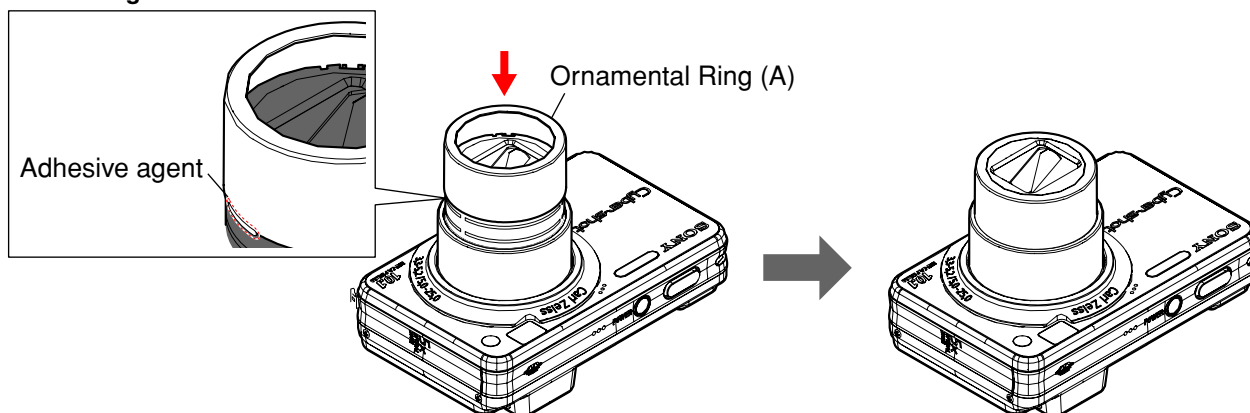
2-3. BARRIER ASSY REPLACING METHOD

Removal

① Turn on the power switch and extend the lens up to the TELE end.
② Detach the battery.
③ Insert the edge of nippers from the inner diameter into Ⓐ or Ⓑ of the Ornamental Ring (A) to make a cut in till the outside.
④ Pinch either of the parted surfaces and wind it up to peel the flat surface on the objective side.
Note: Applying a load to the lens barrel could affect the lens zoom-in operation. Do not apply a load to the lens barrel.

⑤ Utilizing a concave portion of the Barrier Assy, insert the edge of nippers into the side surface to make a cut in and wind it up to peel about 2/3 (about 10mm; approximately second convex).
Note: Mask the second lens barrel to prevent damage.

⑥ Wind a rubber around the remaining part of the Ornamental Ring (A) and apply torque to peel the part that remains inside and at the hem.

⑦ Disengage three claws, and remove the Barrier Assy.

Installation

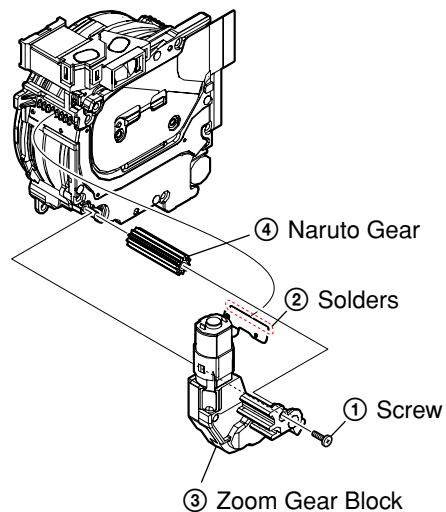
① With three claws fitted in position, install the Barrier Assy.

② Remove adhesive agent remaining on the side surface of the group-1 frame.

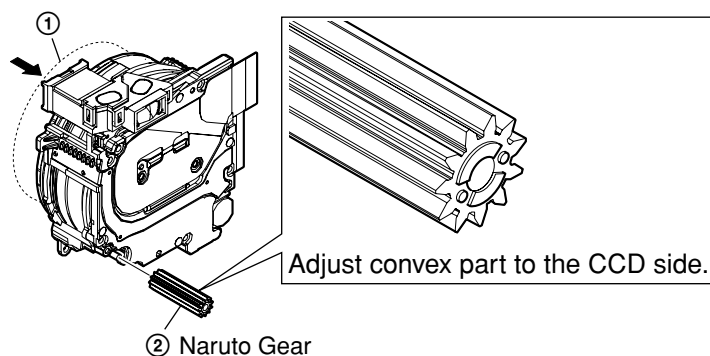
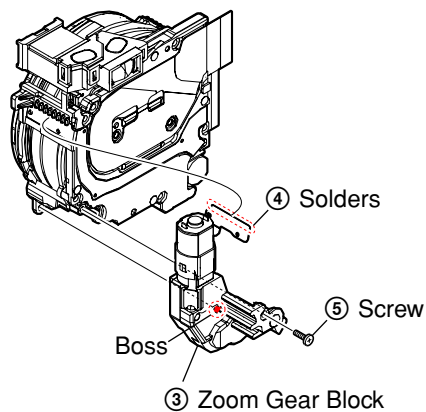
③ Apply adhesive agent to two places of the first convex on the side surface in 3-4 o'clock and 9-10 o'clock directions.
Adhesive agent: Super X (white) or equivalents
Amount of application: 2-3 cubic millimeters per place

④ Install new Ornamental Ring (A)
Note: When the Ornamental Ring (A) passed the second convex, if extra adhesive agent remains on the end surface of the ring, wipe it off and push in the ring until it is stopped.

⑤ Wait for the adhesive agent to harden.
Hardening time: About 20 minutes

2-4. ZOOM MOTOR REPLACING METHOD

2-4-1. Zoom Gear Block Replacing Method

Removal

① Remove one screw.
② Break solders.
③ Remove the Zoom Gear Block.
④ Remove the Naruto Gear.

Installation

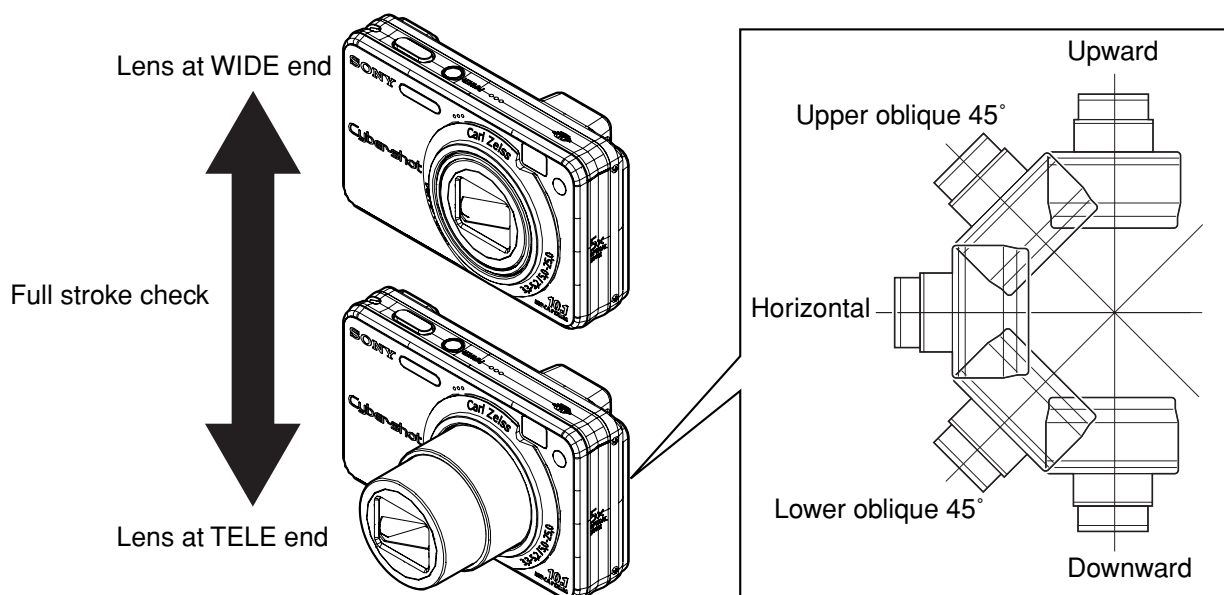
① Confirm the lens barrel is stored.
② Confirm the direction of the Naruto Gear and install it.

③ Install the Zoom Gear Block after matching the position of boss.
④ Solder the flexible board of Zoom Gear Block.
⑤ Tighten one screw.
* Tightening torque = 0.098 ± 0.01N • m (1.0 ± 0.1kgf • cm)

2-4-2. Final Inspection (No Fault In Actual Motion/Actual Screen)

① Zoom motion (Check five postures: horizontal, upward/downward, upper/lower oblique 45º)
No abnormal sound or motion must be found over full stroke between TELE end and WIDE end.

② Zoom image
No abnormality such as a skipped image or wavy image must be found in the image through LCD or finder over full stroke between TELE end and WIDE end.

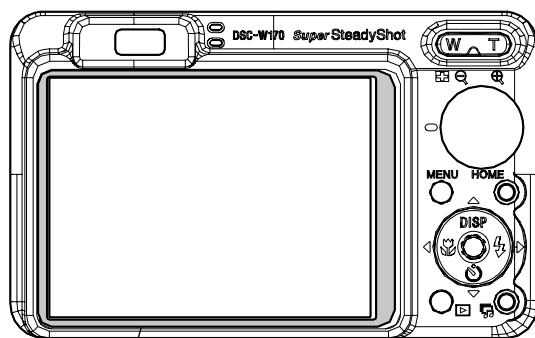
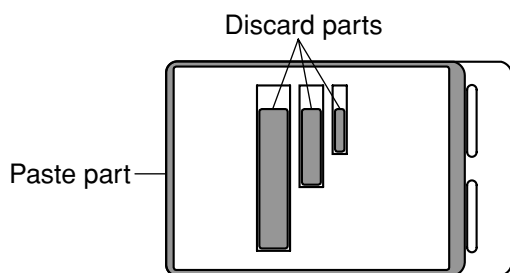
③ Barrier (Check five postures: horizontal, upward/downward, upper/lower oblique 45º)
The barrier must be opened and closed fully, free from a sticking in the midway.
No abnormal sound must be heard during the operation.

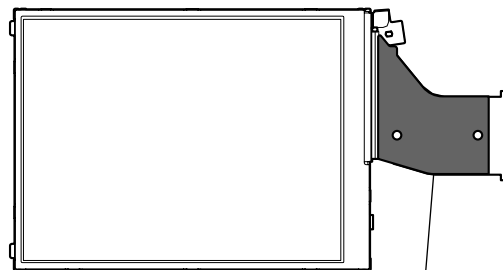
④ Appearance condition
Scratches or stains must not be noticeable, except that the customer permits them.

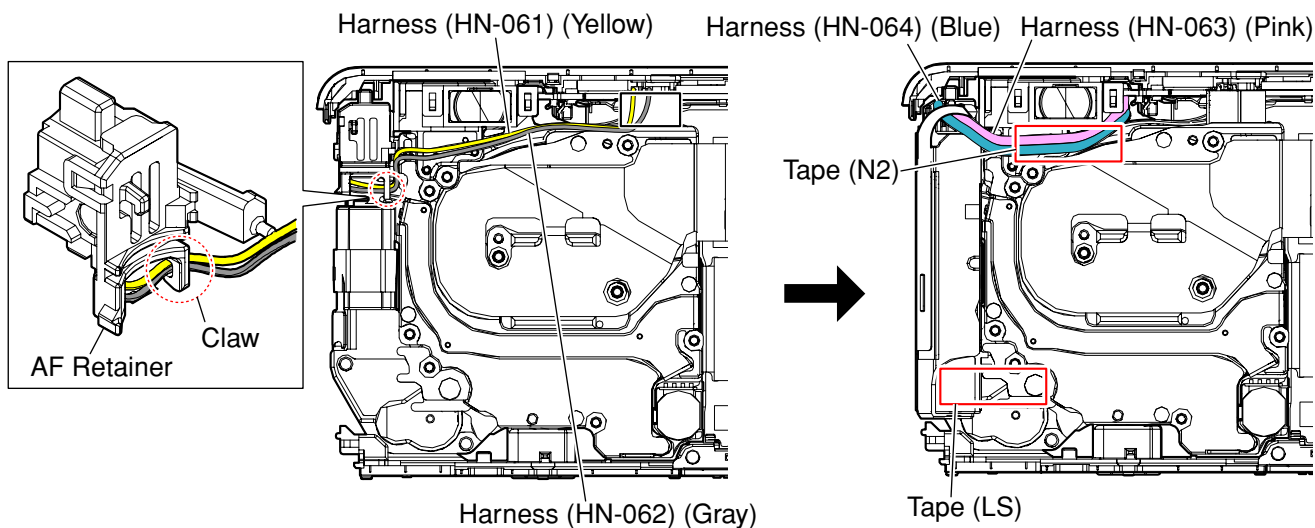
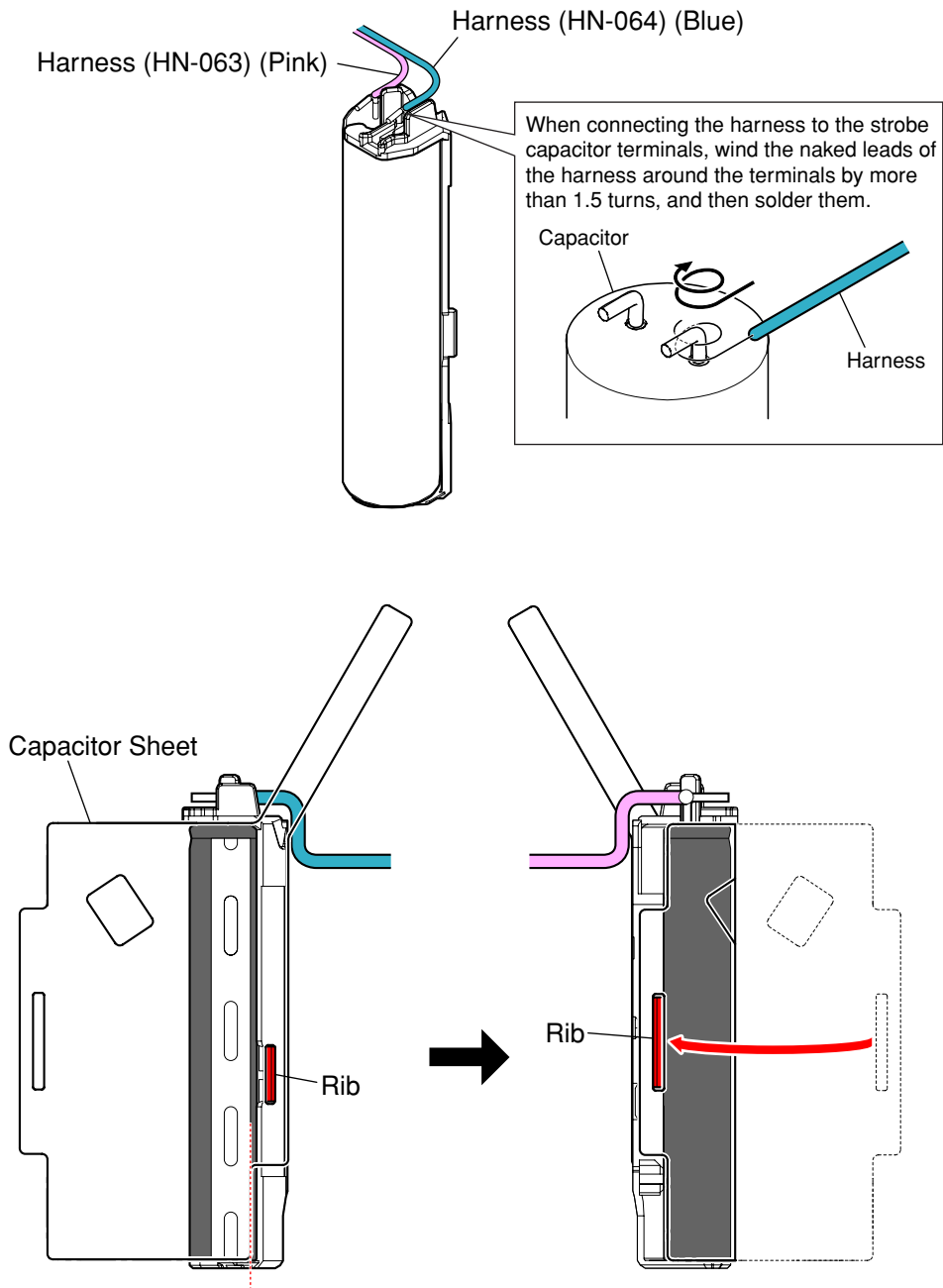
⑤ Foreign matters on the lens
The lens condition must not be worse than that when the camera was received from the customer.

HELP

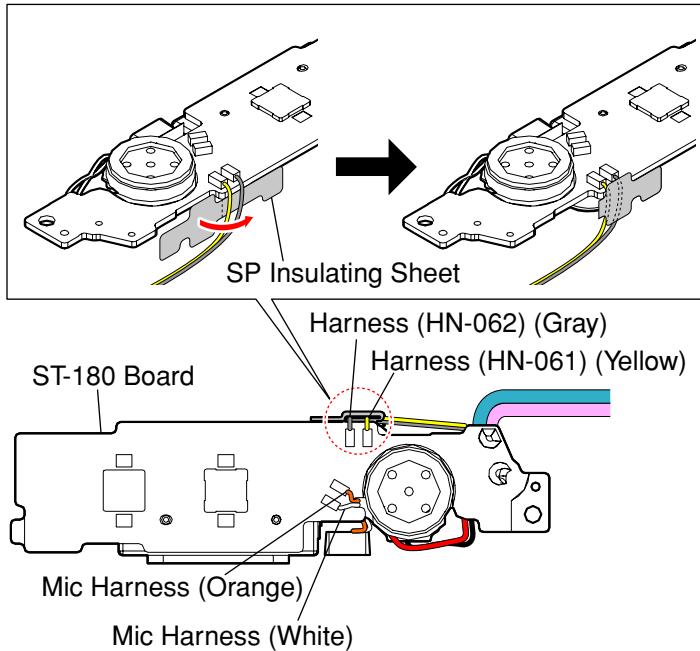
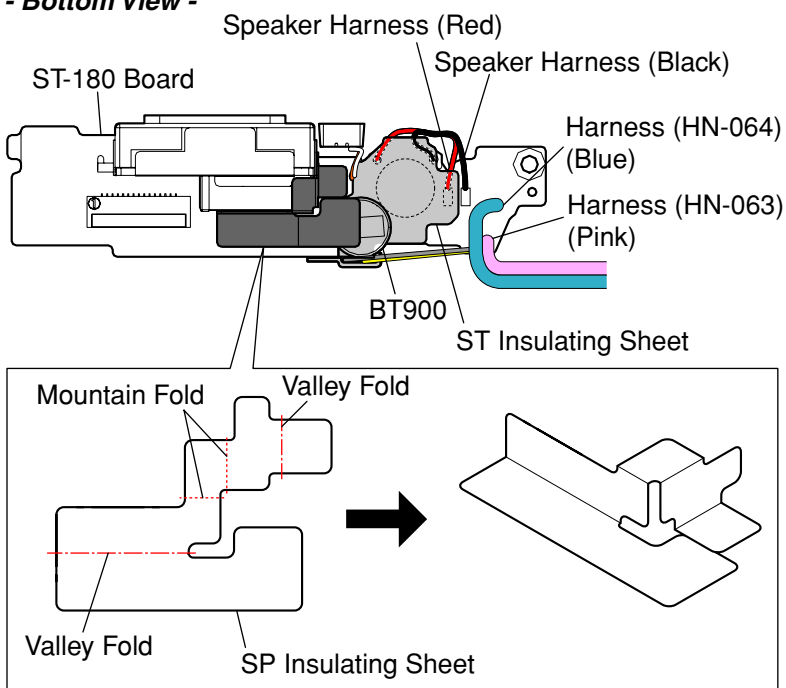
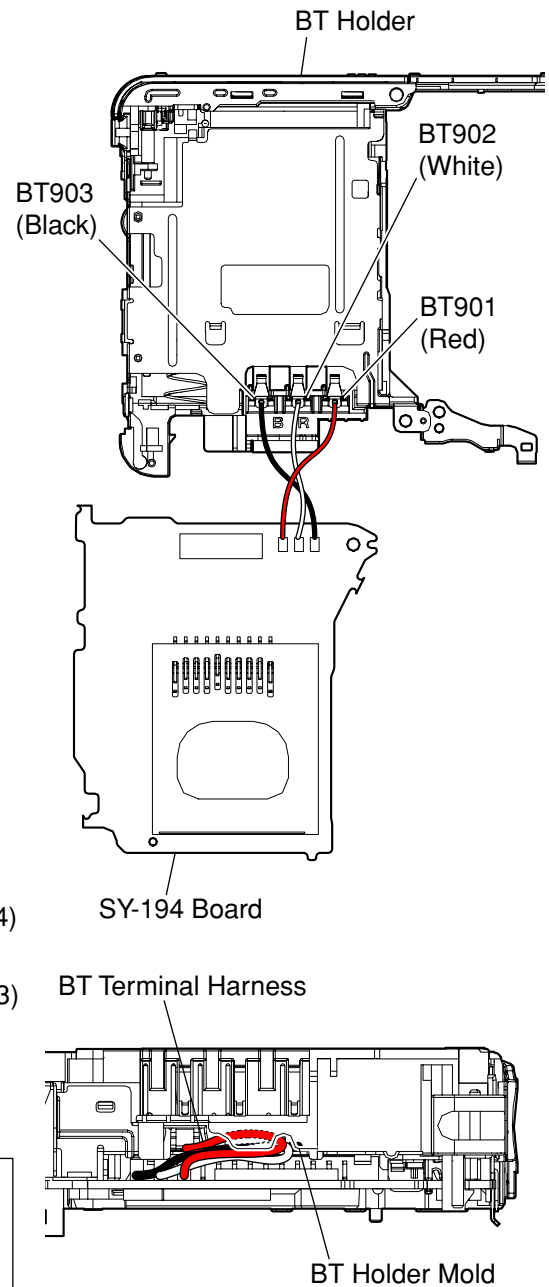
Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.

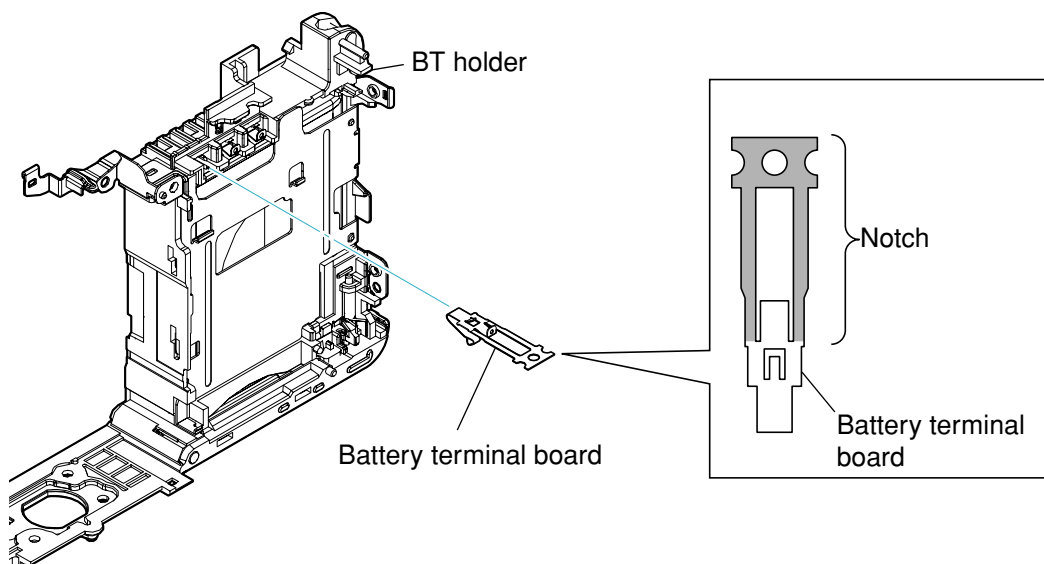
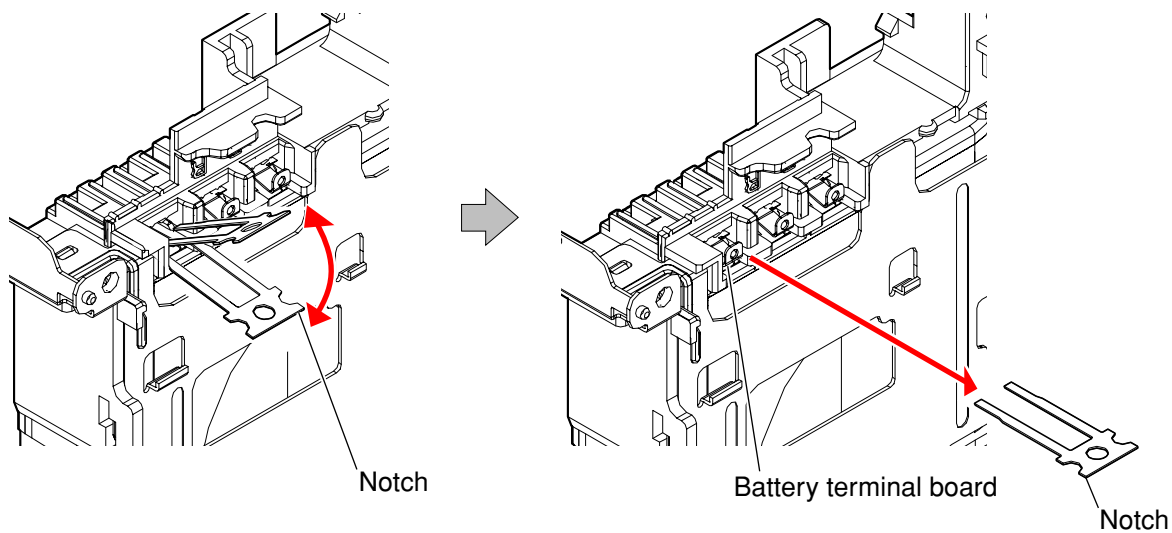
HELP 1: Window Adhesive Sheet Kit

Window Adhesive Sheet Kit must use only the part of LCD window edge.
Please discard other parts.

Window Adhesive Sheet Kit

HELP 2: LCD Radiation Sheet

LCD Radiation Sheet

HELP 3: Harness (HN-061/062/063/064)/Tape (N2/LS)

HELP 4: Harness (HN-063/064)/Capacitor Sheet

HELP 5: Sheets and Harness of ST-180 Board

- Top View -

- Bottom View -

HELP 6: BT Terminal Harness

HELP 7: Installation Method of Battery Terminal Board

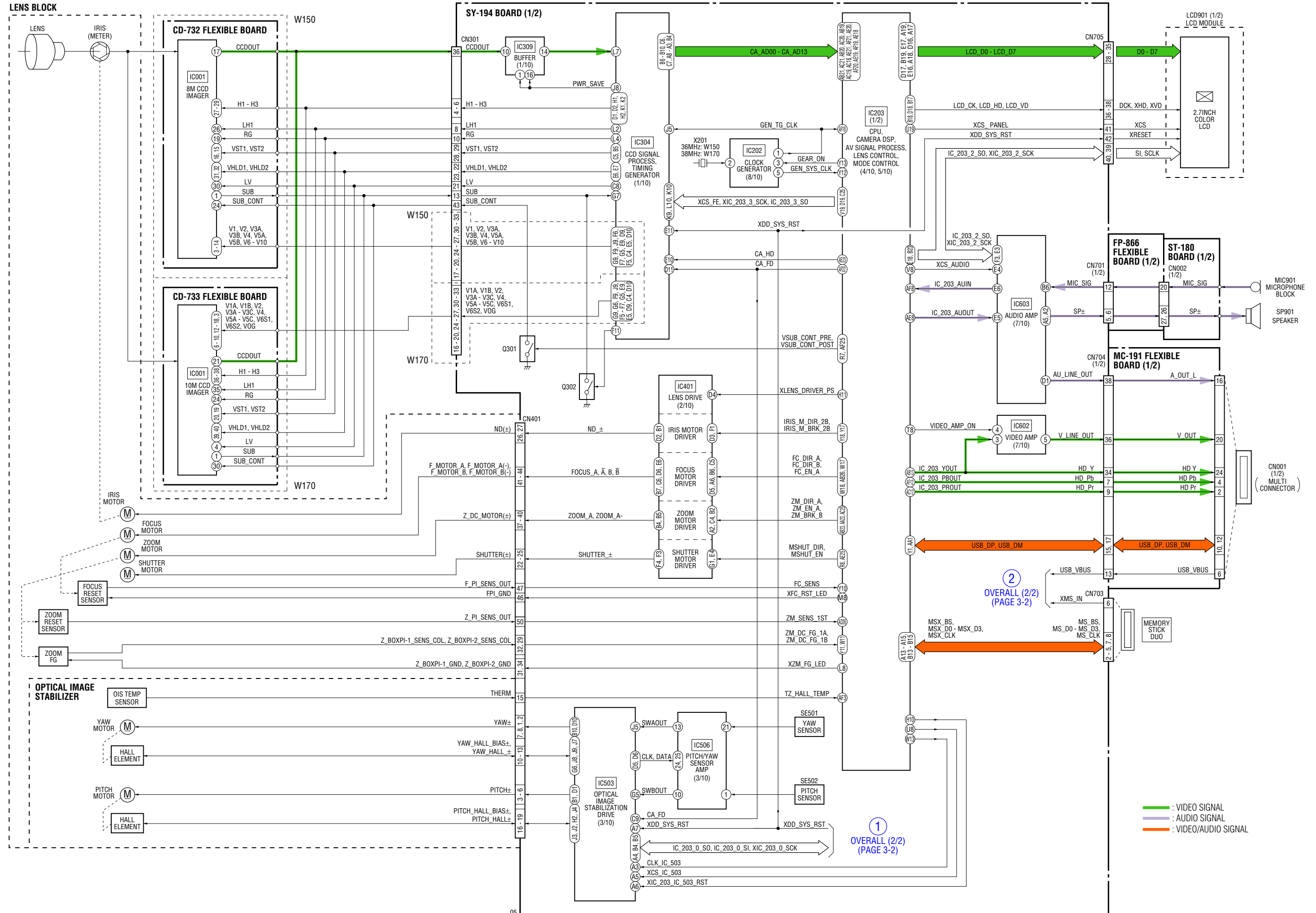
① Insert the battery terminal board into a slit in the BT holder to install.
  * The battery terminal board is attached with the notch for installation.

② Fold the notch 3 or 4 times repeatedly to break.

3. BLOCK DIAGRAMS

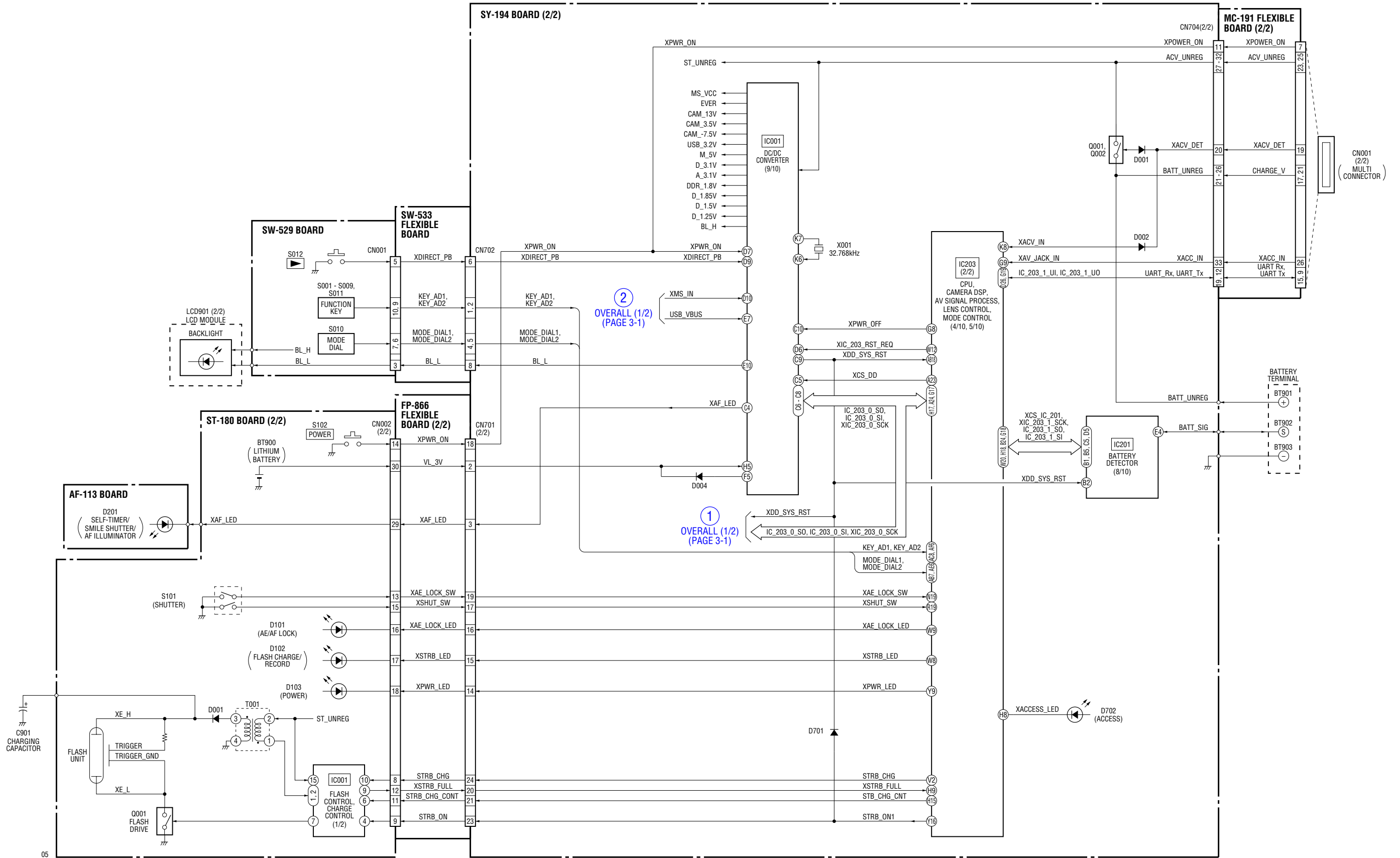
Link

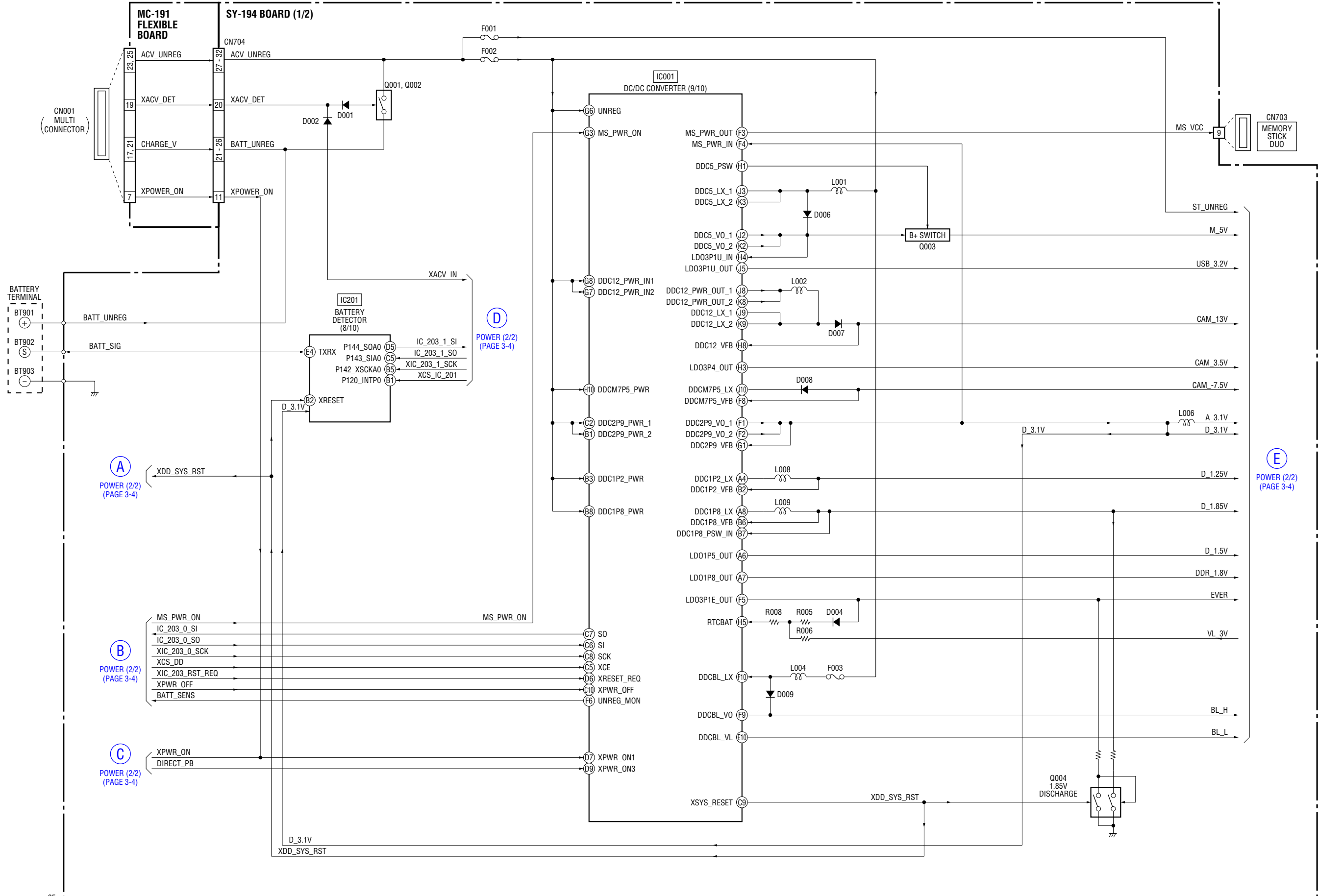
3. BLOCK DIAGRAMS

3-1. OVERALL BLOCK DIAGRAM (1/2)

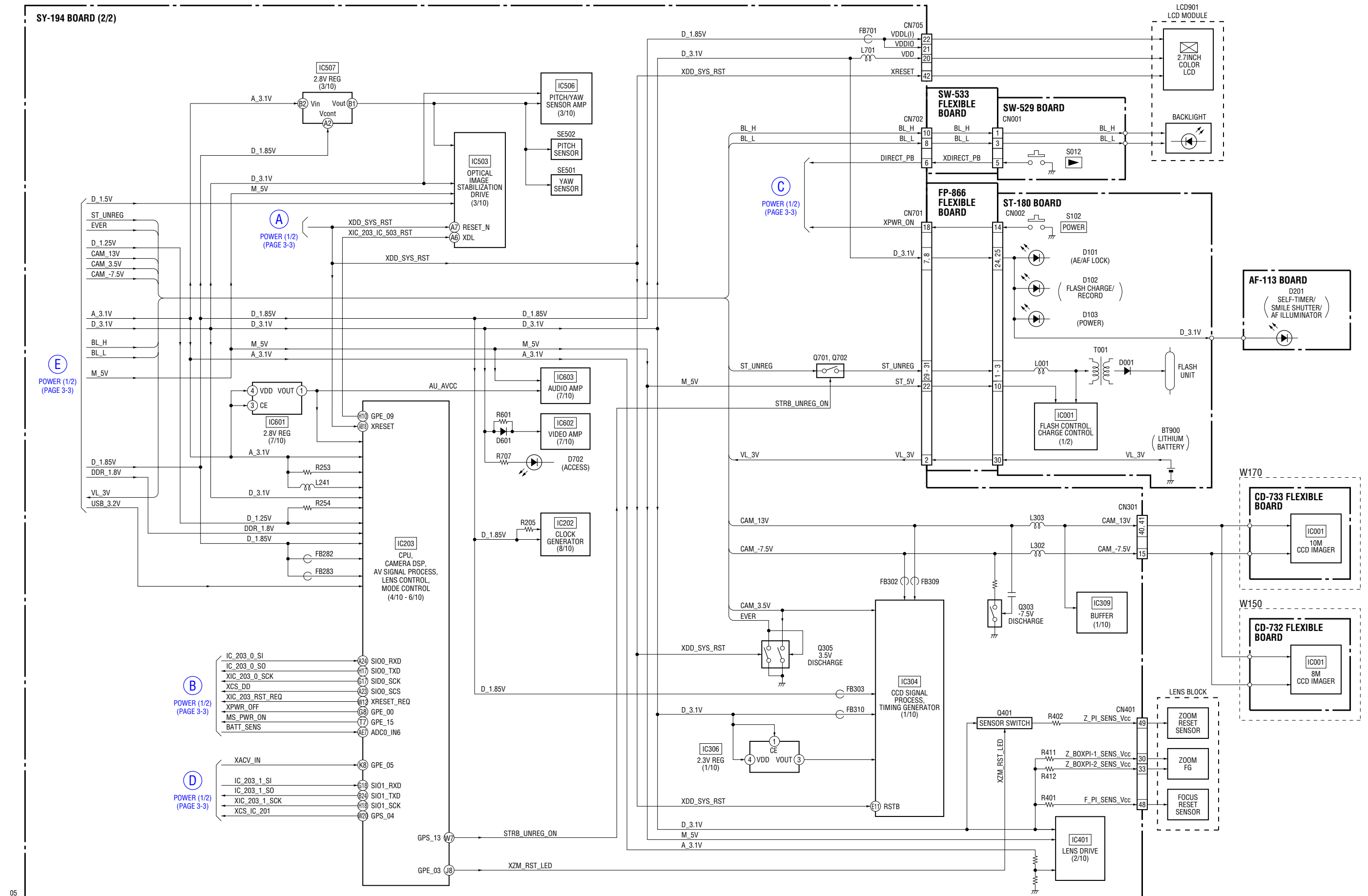
( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

DSC-W150/W170_L2

3-2. OVERALL BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

3-3. POWER BLOCK DIAGRAM (1/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

3-4. POWER BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM

4-2. SCHEMATIC DIAGRAMS

Link

4-2. SCHEMATIC DIAGRAMS (ENGLISH)

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in µF unless otherwise noted. pF : µµF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts. New parts must be attached after removal of chip. Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

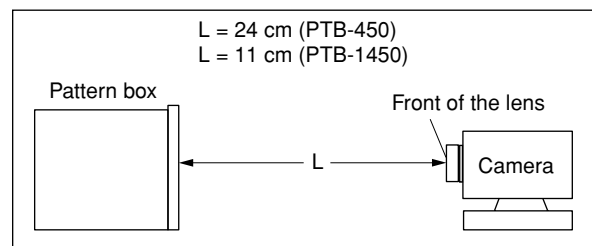
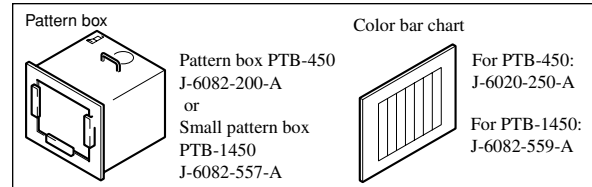
- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used. In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination. Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection

2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

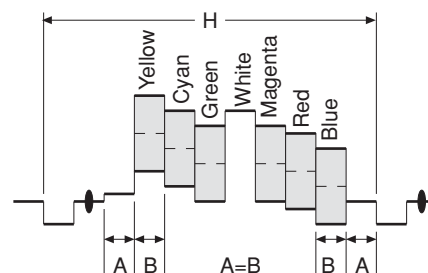



Fig. a (Video output terminal output waveform)

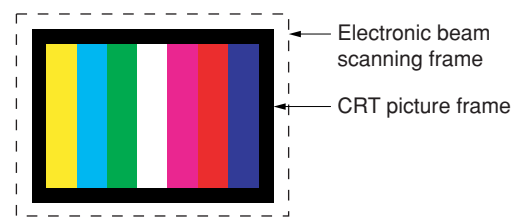



Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

(JAPANESE)

回路図共通ノート
（他に必要なノートは各ブロックに記載してあります）

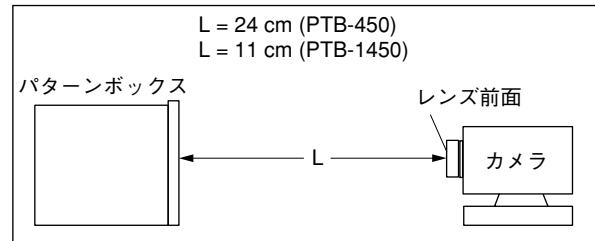
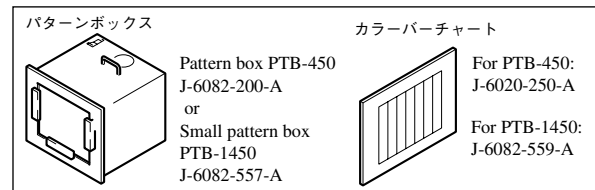
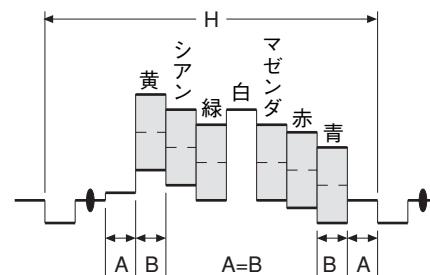
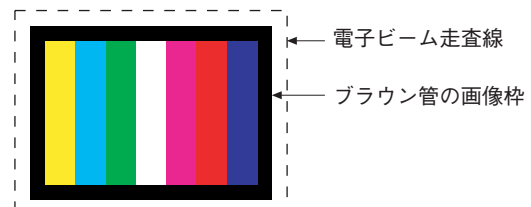
【回路図ノート】
- ケミコン，タンタルを除くコンデンサで，耐圧50V以下のものはその耐圧を省略。単位はすべてμF（pはpF）。
- チップ抵抗で指示のないものは，1／10W以下。
  kΩ＝1000Ω，MΩ＝1000kΩ
- チップ部品交換時の注意
  取り外した部品は再使用せず，未使用の部品をご使用ください。
  タンタルコンデンサのマイナス側は熱に弱いため注意してください。
- チップ部品には下記のように表示したものがあります。

例	C 541		L 452
	22U		10UH
	TA	A	2520
	↑	↑	↑
	種類	ケースサイズ	外形寸法（mm）

- 抵抗，コンデンサ，ICなど定数にXXがあるものは，使用していない事を示しています。このため，使用していない回路が記載されている事があります。
- ★印のある部品は，機種などにより異なりますので機能別マウント一覧表を参照してください。
- 可変抵抗と半固定抵抗で，B特性の表示を省略。
- 信号名表記について，下記のような場合があります。
  XEDIT → EDIT　　PB/XREC → PB/REC
- ［不燃性抵抗記号］は不燃性抵抗。
- ［ヒューズ抵抗記号］はヒューズ抵抗。
- □はパネル表示名称。
- ━━はB＋ライン。
- ━ ━はB－ライン。
- ⇨はBライン（＋，－）の入出力方向を示す。
- □は調整名称。

【電圧・波形測定条件ノート】
- 電圧値及び信号波形はパターンボックスのカラーバーチャートを被写体としたときの測定点対アース間の参考値。
  （デジタルマルチメータ；入力インピーダンス　DC10MΩ使用）
- 使用テスタの入力インピーダンスにより電圧値が多少異なります。

イメージャ交換時の注意
- イメージャを交換した場合は，カメラ部の全調整を行ってください。
- イメージャは構造上，静電気により破壊される恐れがあるため，MOS ICと同様に注意して取り扱ってください。
  また，受光部にはゴミの付着，および強い光がはいることのないように注意してください。

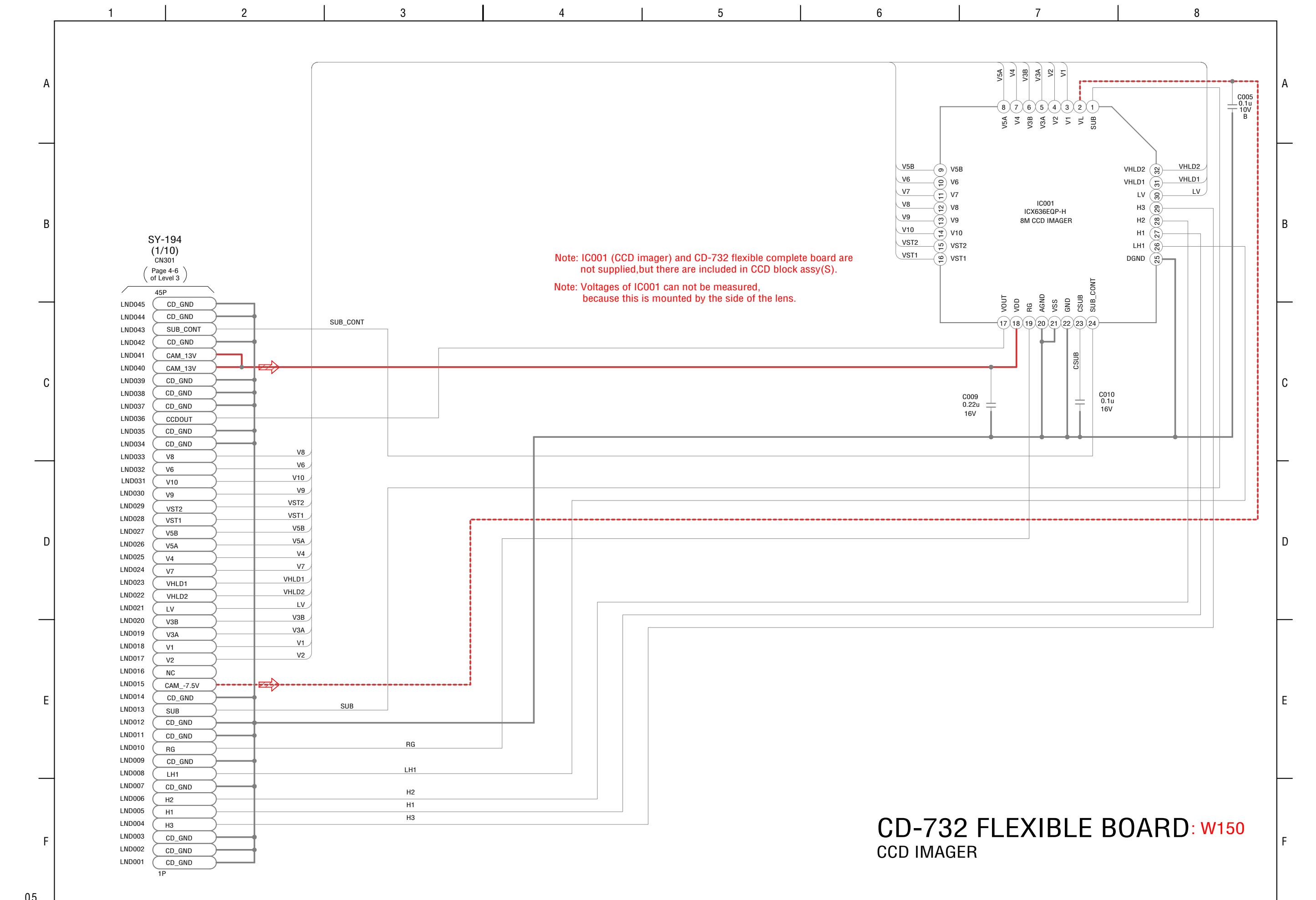
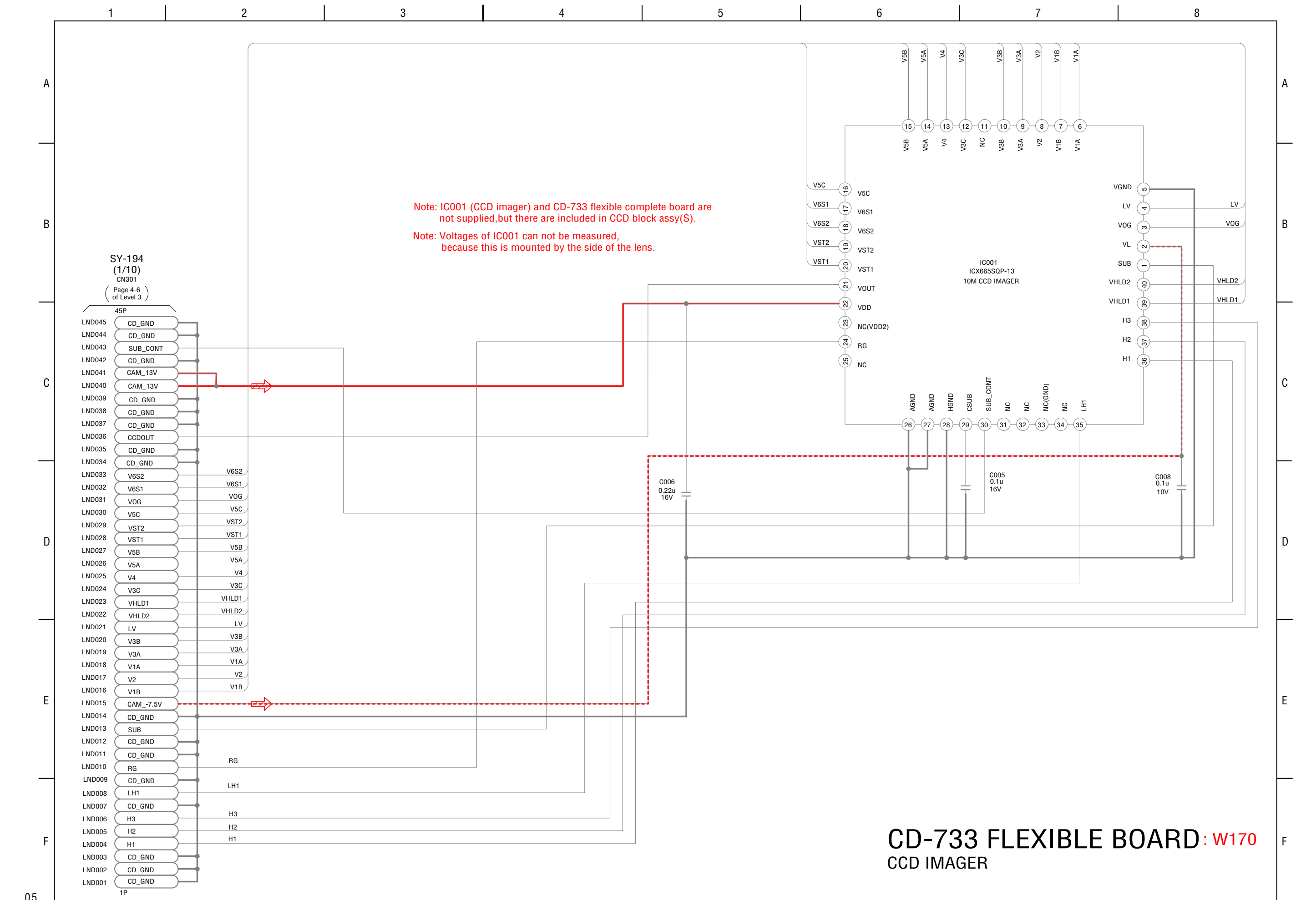
1. 接続図

2. 図a及び図bの波形が得られるように画枠調整して下さい。

図a（映像入出力端子出力波形）

図b（テレビモニタの映像）

⚠印の部品，または⚠印付きの点線で囲まれた部品は，安全性を維持するために重要な部品です。
従って交換時は，必ず指定の部品を使用して下さい。

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。

CD-732 FLEXIBLE BOARD: W150

CCD IMAGER

05

Note: IC001 (CCD imager) and CD-733 flexible complete board are not supplied,but there are included in CCD block assy(S).
Note: Voltages of IC001 can not be measured, because this is mounted by the side of the lens.
SY-194 (1/10)
CN301
Page 4-6 of Level 3
45P
IC001
ICX665SQP-13
10M CCD IMAGER
C006 0.22u 16V
C005 0.1u 16V
C008 0.1u 10V
CD-733 FLEXIBLE BOARD : W170
CCD IMAGER

Schematic diagrams of the SY-194 board are not shown.
Pages from 4-6 to 4-15 are not shown.

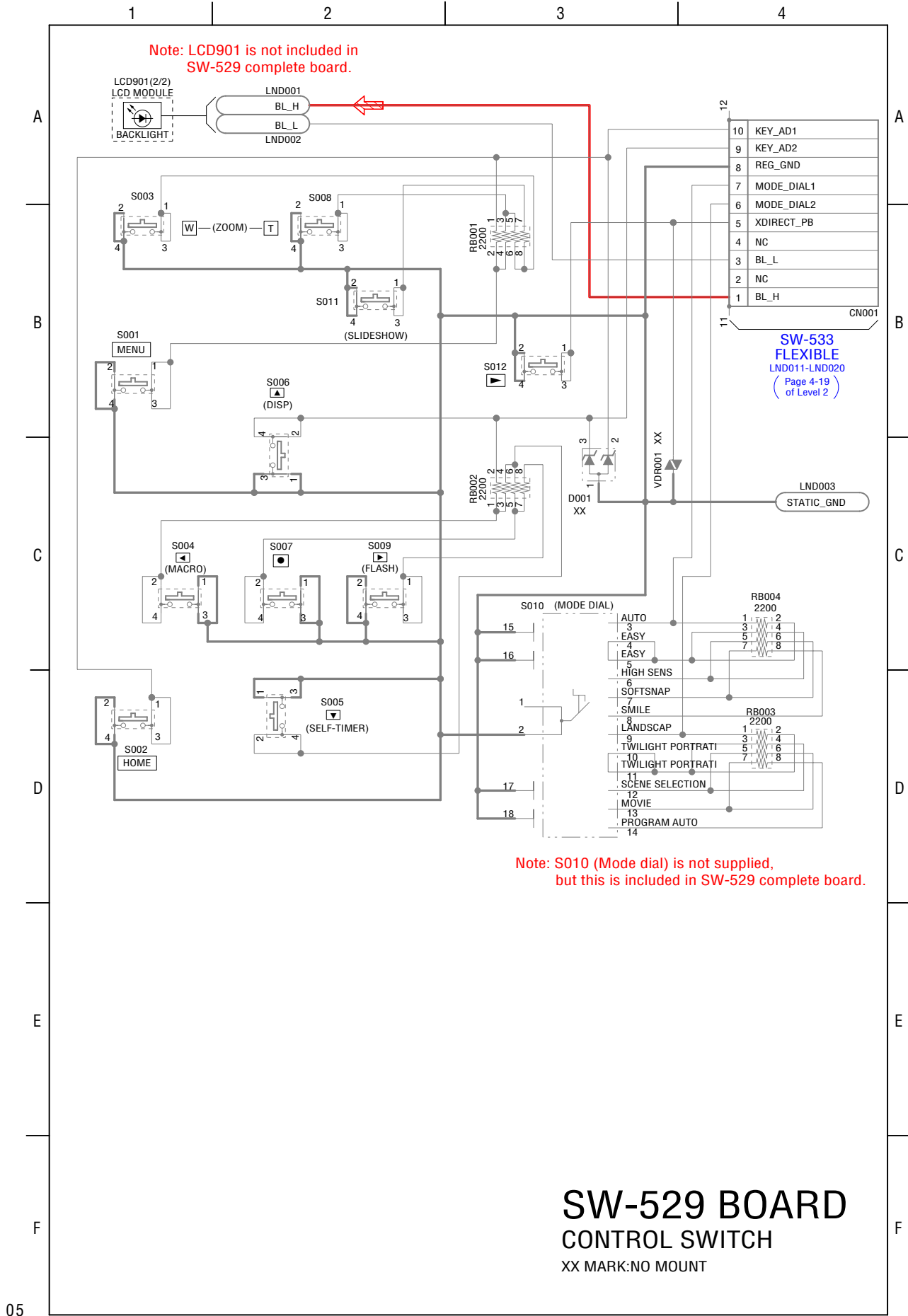
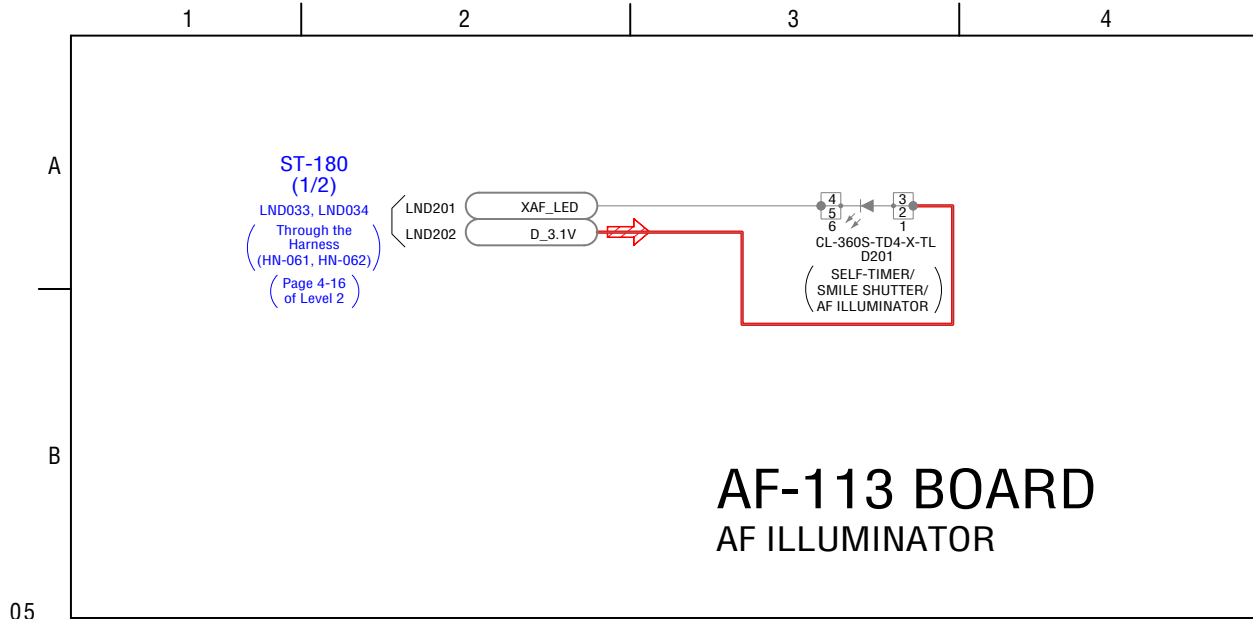
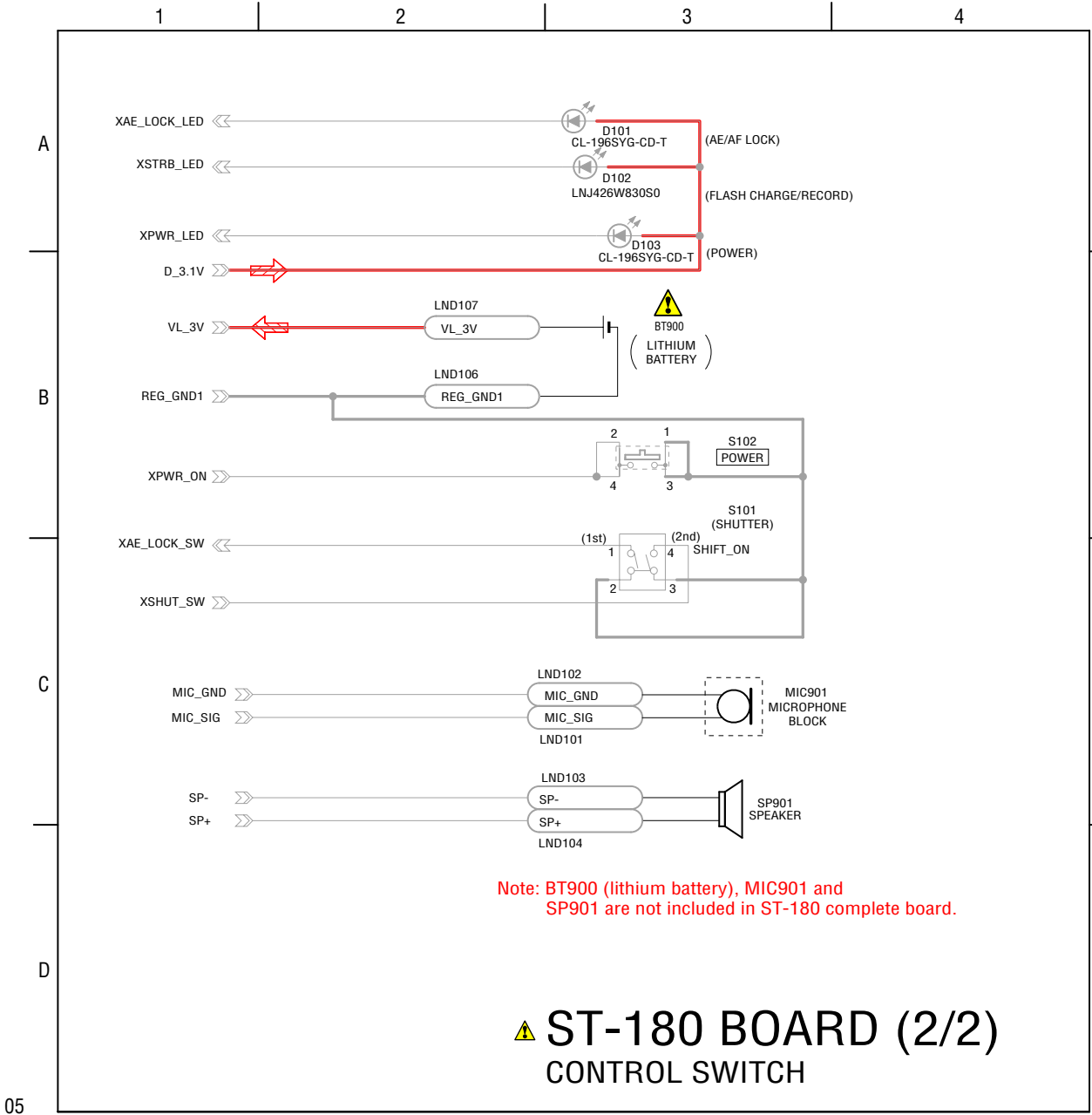
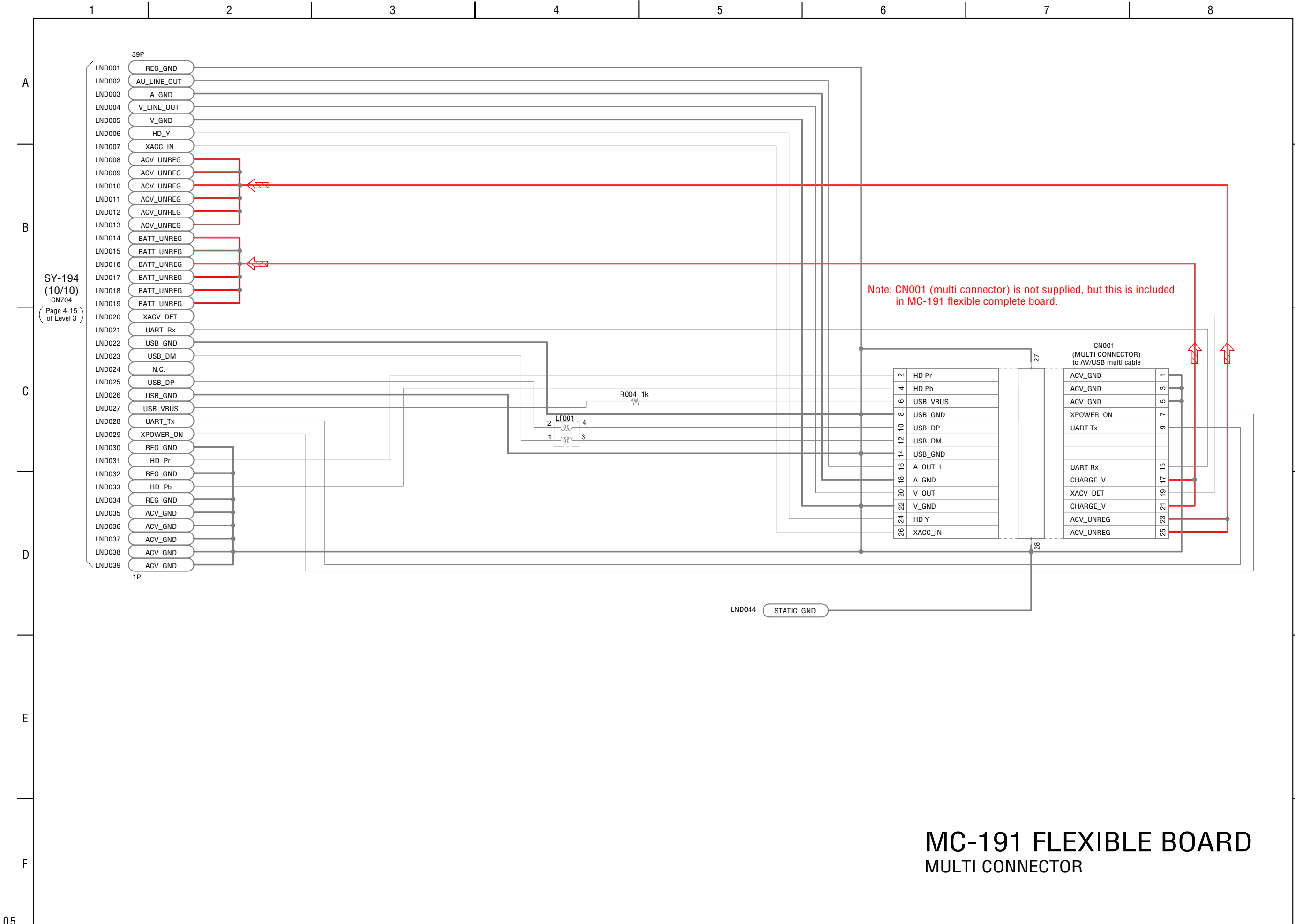
• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.

ST-180 BOARD (1/2)

FLASH DRIVE

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.

MC-191 FLEXIBLE BOARD

MULTI CONNECTOR

05

• Refer to page 4-2 (English), 4-3 (Japanese) for mark ⚠.

4-3. PRINTED WIRING BOARDS

Link

4-3. PRINTED WIRING BOARDS

(ENGLISH)

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

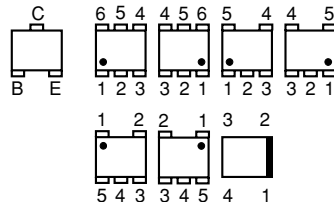
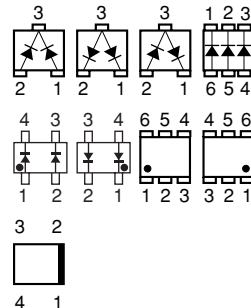
- Chip parts.

Transistor

C
B E

6 5 4 / 1 2 3
4 5 6 / 3 2 1
5 4 / 1 2 3
4 5 / 3 2 1
1 2 / 5 4 3
2 1 / 3 4 5
3 2 / 4 1

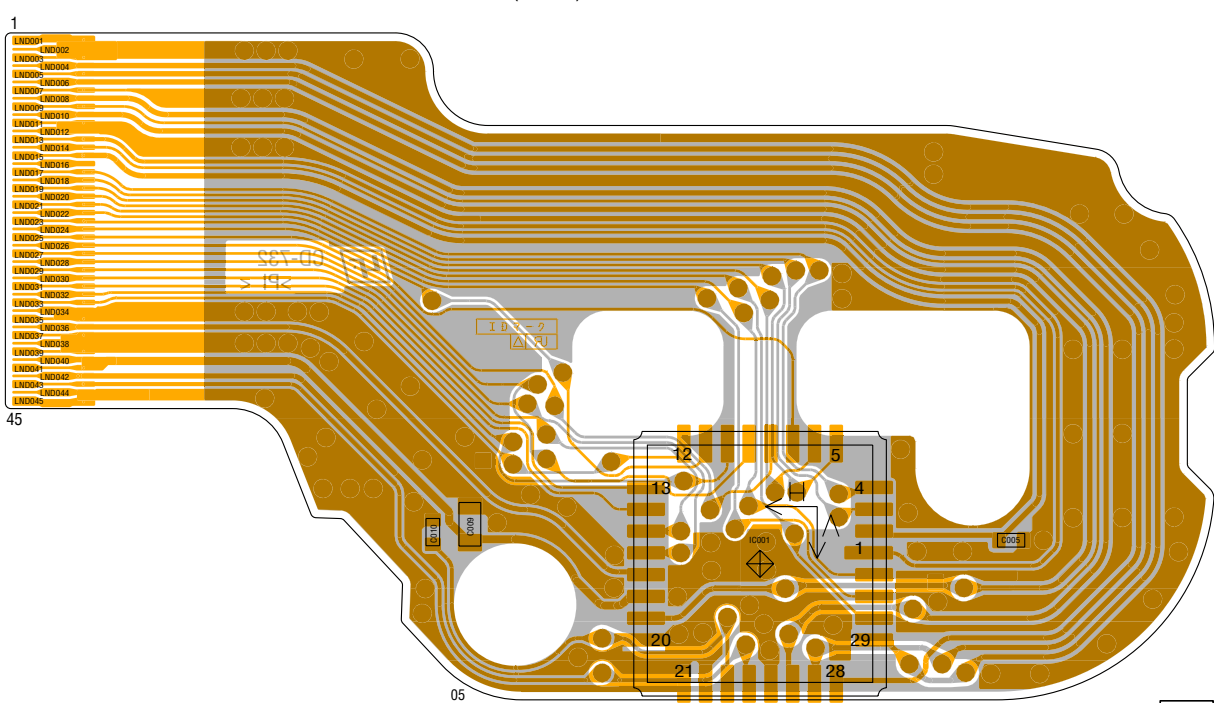
Diode

3 / 2 1
3 / 2 1
3 / 2 1
1 2 3 / 6 5 4
4 3 / 1 2
3 4 / 2 1
6 5 4 / 1 2 3
4 5 6 / 3 2 1
3 2 / 4 1

(JAPANESE)

プリント図共通ノート

【プリント図ノート】

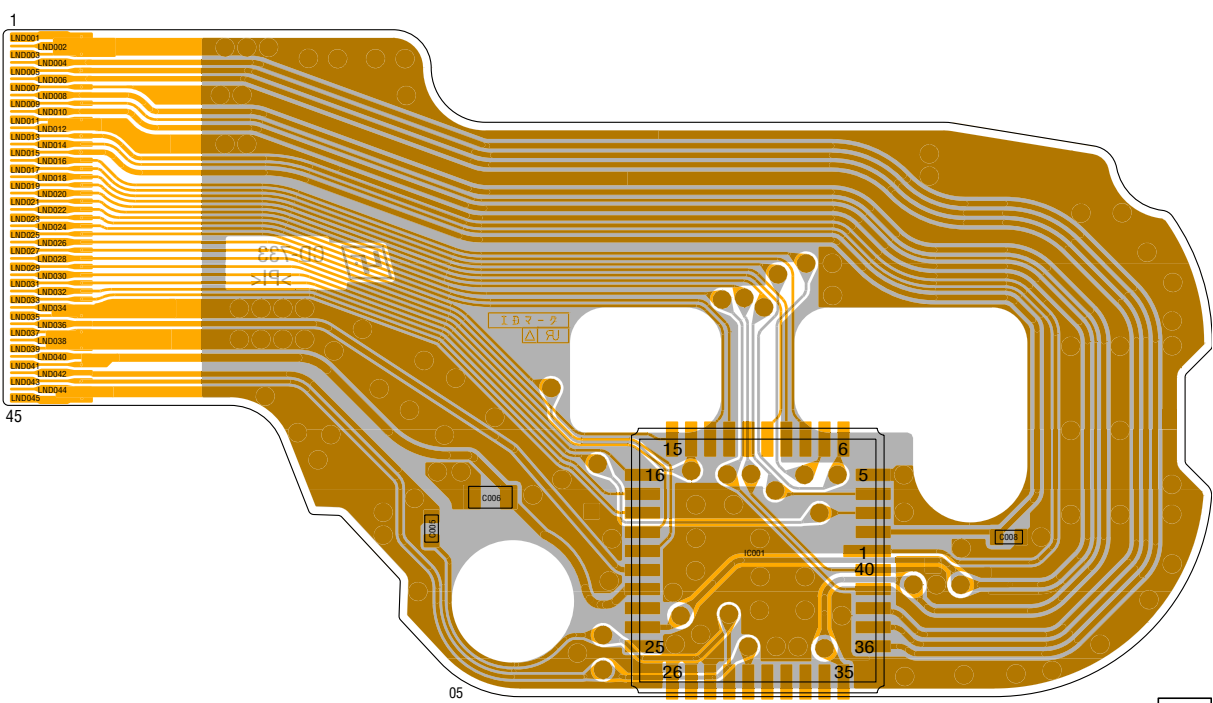
・：無鉛半田を使用しています。
・：基板
：フレキシブル配線板
見ている面側のパターン。
：裏側のパターン
（他のパターンについては表示されていません）
・スルーホールは省略。
・プリント図には，本機で使用していない部品が記載されている場合があります。
・はパネル表示名称。

CD-732 (2 layers), CD-733 (2 layers)

LF : Uses unleaded solder.

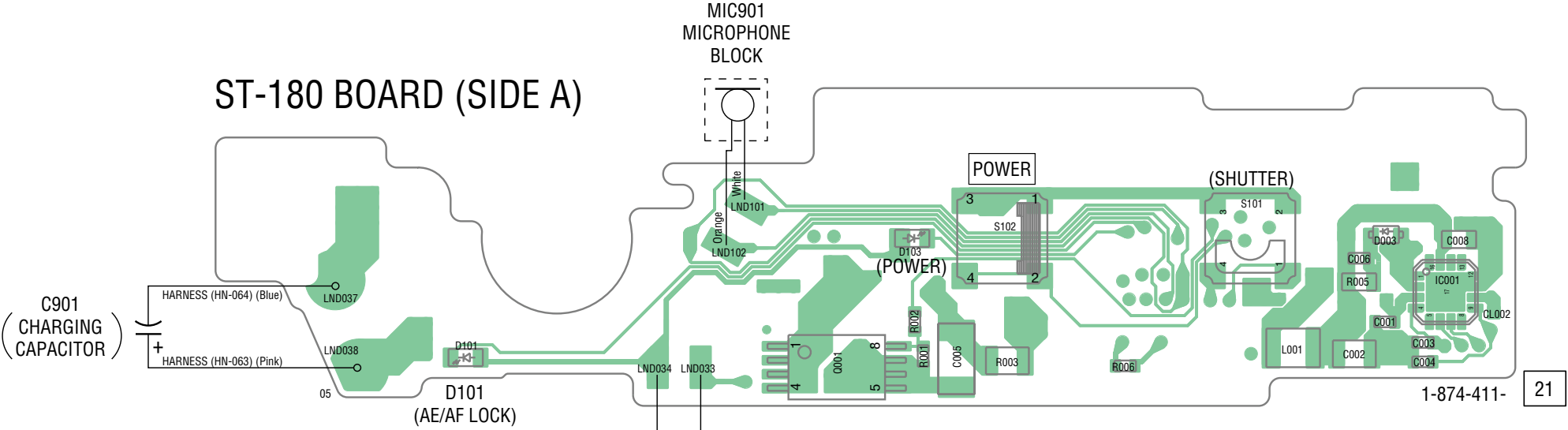
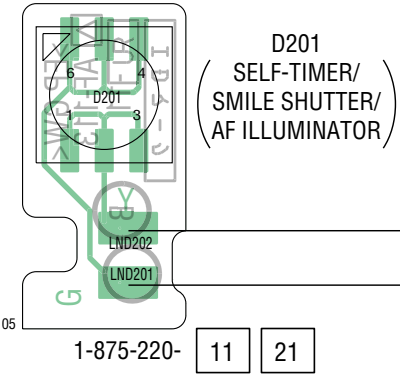
CD-732 FLEXIBLE BOARD (W150)

Note: IC001 (CCD imager) and CD-732 flexible complete board are not supplied, but there are included in CCD block assy(S).

1-874-980- 11

CD-733 FLEXIBLE BOARD (W170)

Note: IC001 (CCD imager) and CD-733 flexible complete board are not supplied, but there are included in CCD block assy(S).

1-874-981- 11

Printed wiring board of the SY-194 board is not shown.
Page from 4-22 is not shown.

: Uses unleaded solder.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

SW-529 (2 layers)

: Uses unleaded solder.

SW-529 BOARD (SIDE A)

TO LCD901 (BACKLIGHT)

BL-H

BL-L

LND001

LND002

S003 S008

W (ZOOM) T

S010 (MODE DIAL)

RB001 RB002 RB003 RB004 VDR001 D001

MENU HOME

S001 S002

▲ (DISP)

S006

◀ (MACRO)

● S007

▶ (FLASH)

S004 S009

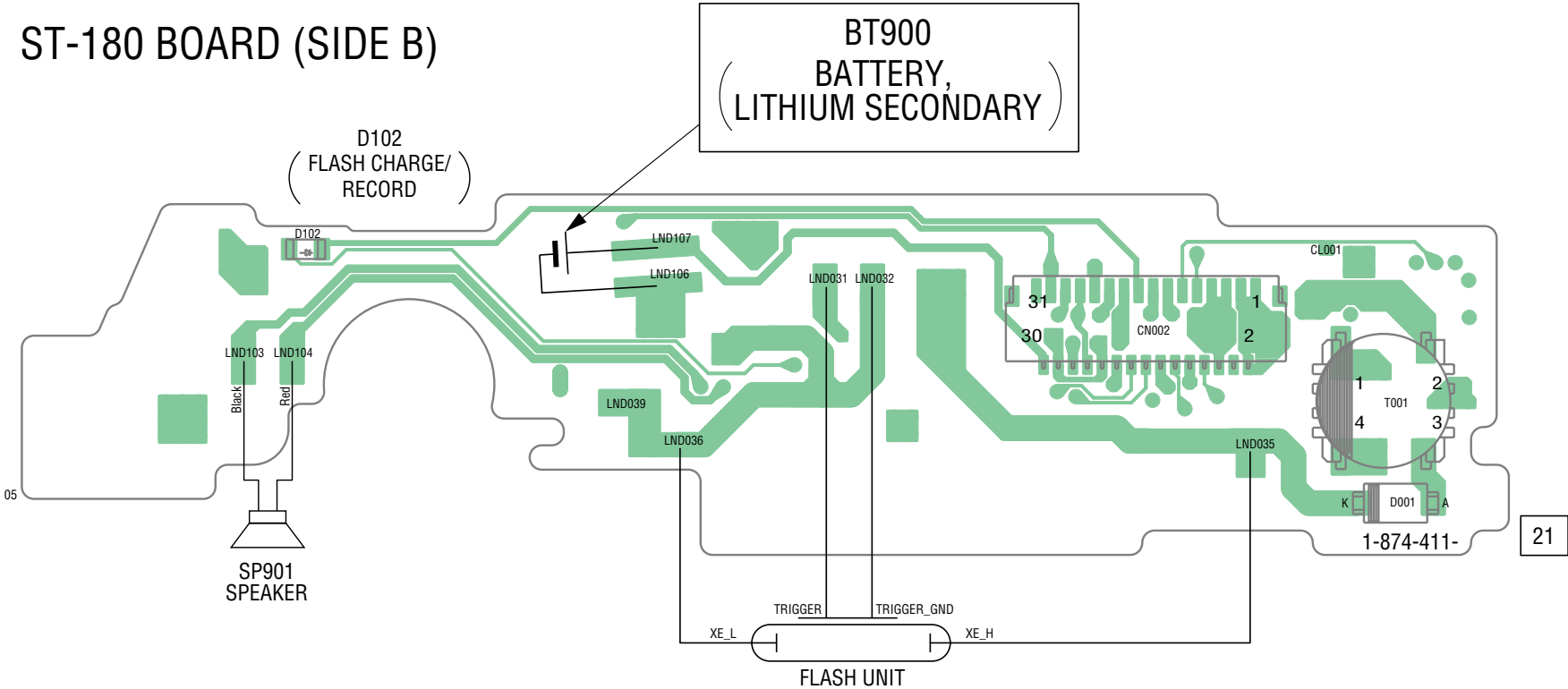
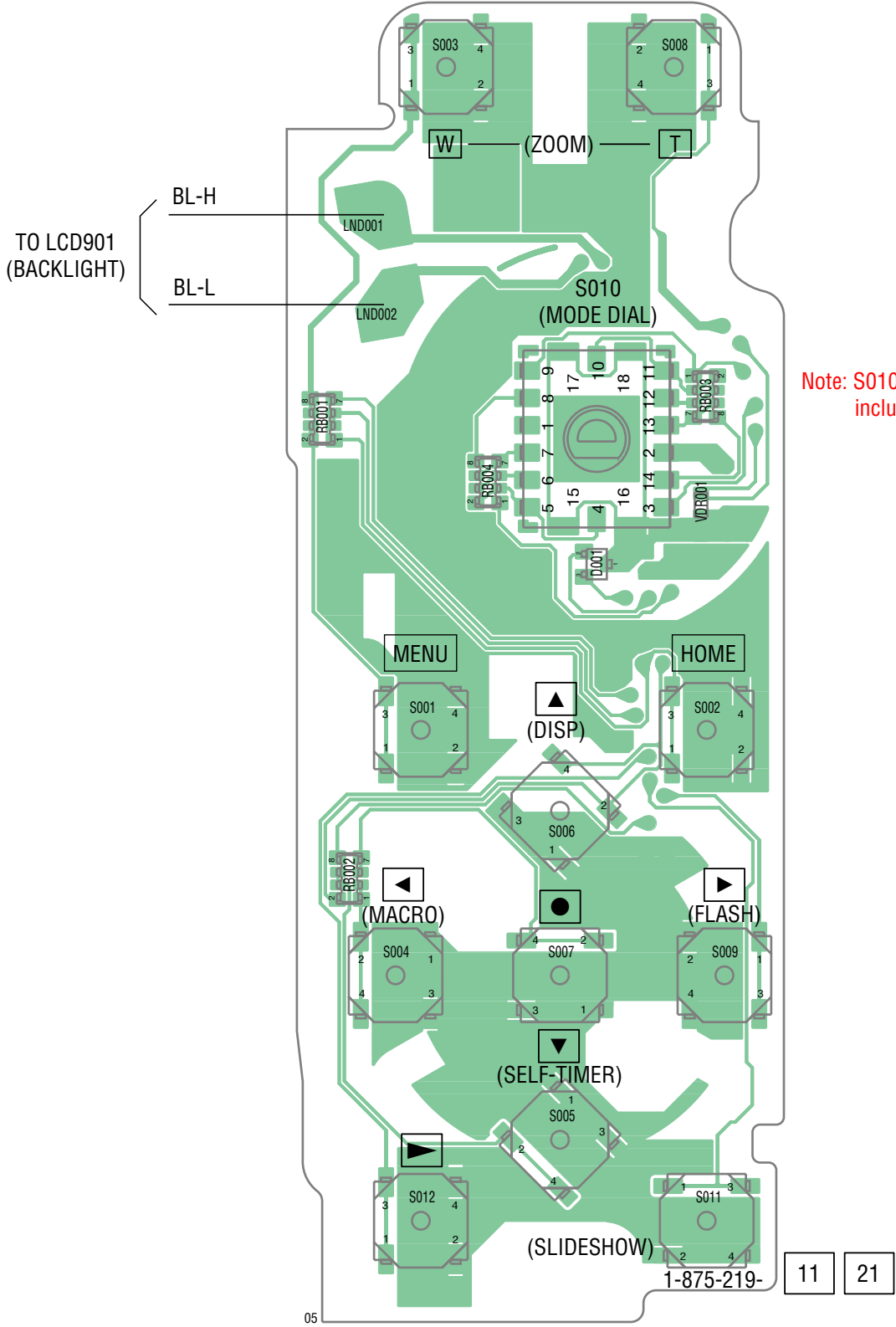
▼ (SELF-TIMER)

S005

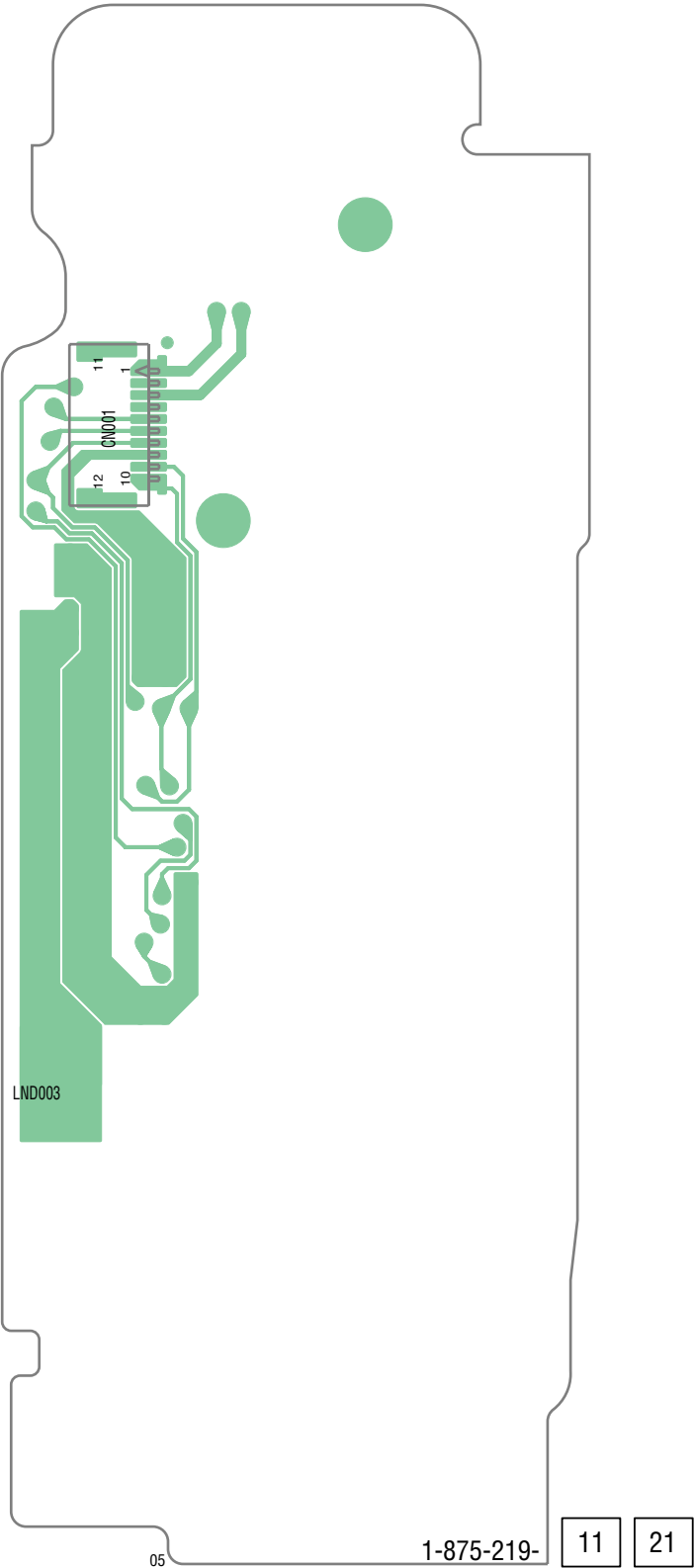
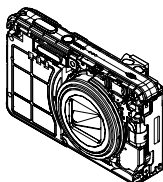
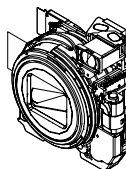
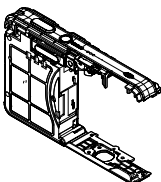
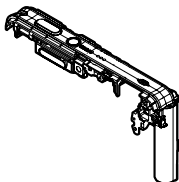
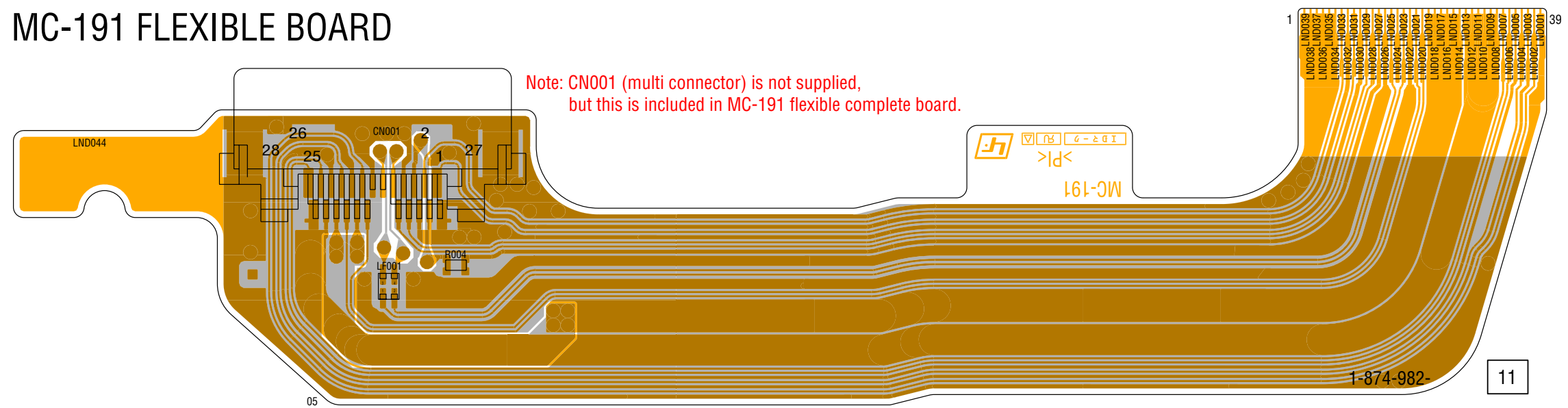
S012 S011

(SLIDESHOW)

1-875-219- 11 21

05

Note: S010 (Mode dial) is not supplied, but this is included in SW-529 complete board.

SW-529 BOARD (SIDE B)

MC-191 (2 layers)

: Uses unleaded solder.

MC-191 FLEXIBLE BOARD

5. REPAIR PARTS LIST

NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

5. REPAIR PARTS LIST

(ENGLISH)

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Color Indication of Appearance Parts
  Example:
  (SILVER) : Cabinet's Color
  (Silver) : Parts Color

(JAPANESE)

【使用上の注意】

- ここに記載されている部品は, 補修用部品であるため, 回路図及びセットに付いている部品と異なる場合があります。
- -XX, -Xは標準化部品のため, セットに付いている部品と異なる場合があります。
- *印の部品は常備在庫しておりません。
- コンデンサの単位でuFはμFを示します。
- 抵抗の単位Ωは省略してあります。
  金　　被：金属被膜抵抗。
  サンキン：酸化金属被膜抵抗。
- インダクタの単位でuHはμHを示します。
- 半導体の名称でuA..., uPA..., uPB..., uPC..., uPD...等はそれぞれμA..., μPA..., μPB..., μPC..., μPD...を示します。

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定してください。

⚠印の部品，または⚠印付の点線で囲まれた部品は，安全性を維持するために，重要な部品です。
従って交換時は,必ず指定の部品を使用してください。

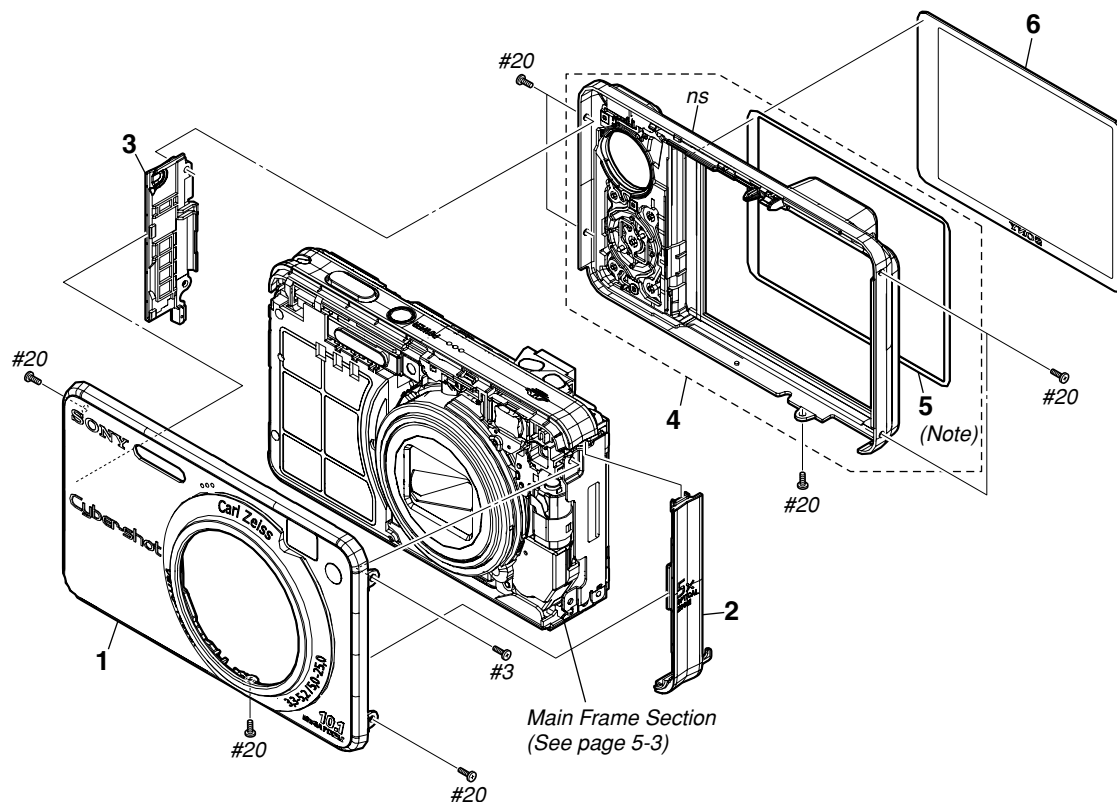
- 外装部品色表示
  例：
  (SILVER):セットの色を表す。
  (Silver)　：部品の色を表す。

- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model
  TH : Thai model
  TW : Taiwan model

DISASSEMBLY HARDWARE LIST

5-1. EXPLODED VIEWS

5-1-1. CABINET SECTION

ns: not supplied

Note: Refer to “HELP 1: Window Adhesive Sheet Kit” when replace the LCD window adhesive sheet kit.

Note: LCD窓接着紙KITを交換する際は，「HELP1: Window Adhesive Sheet Kit」を参照してくださ

Ref. No.	Part No.	Description
1	X-2189-939-1	CABINET (FRONT) ASSY (W170: SILVER)
1	X-2189-940-1	CABINET (FRONT) ASSY (W170: BLACK)
1	X-2189-941-1	CABINET (FRONT) ASSY (W170: RED)
1	X-2189-942-1	CABINET (FRONT) ASSY (W170: GOLD)
1	X-2189-943-1	CABINET (FRONT) ASSY (W150: SILVER)
1	X-2189-944-1	CABINET (FRONT) ASSY (W150: BLACK)
1	X-2189-945-1	CABINET (FRONT) ASSY (W150: RED)
1	X-2189-946-1	CABINET (FRONT) ASSY (W150: GOLD)
2	3-300-527-01	CABINET (R), SIDE
3	3-300-528-01	CABINET (L), SIDE
4	X-2189-955-1	CABINET (REAR) ASSY (W170: SILVER)
4	X-2189-956-1	CABINET (REAR) ASSY (W170: BLACK)
4	X-2189-957-1	CABINET (REAR) ASSY (W170: RED)
4	X-2189-958-1	CABINET (REAR) ASSY (W170: GOLD)
4	X-2189-959-1	CABINET (REAR) ASSY (W150: SILVER)
4	X-2189-960-1	CABINET (REAR) ASSY (W150: BLACK)
4	X-2189-961-1	CABINET (REAR) ASSY (W150: RED)
4	X-2189-962-1	CABINET (REAR) ASSY (W150: GOLD)
5	3-300-548-01	SHEET KIT, WINDOW ADHESIVE (Note)
6	3-300-536-01	WINDOW, LCD
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#20	2-635-591-31	SCREW (M1.4), NEW TRUSTAR P2 (Silver)

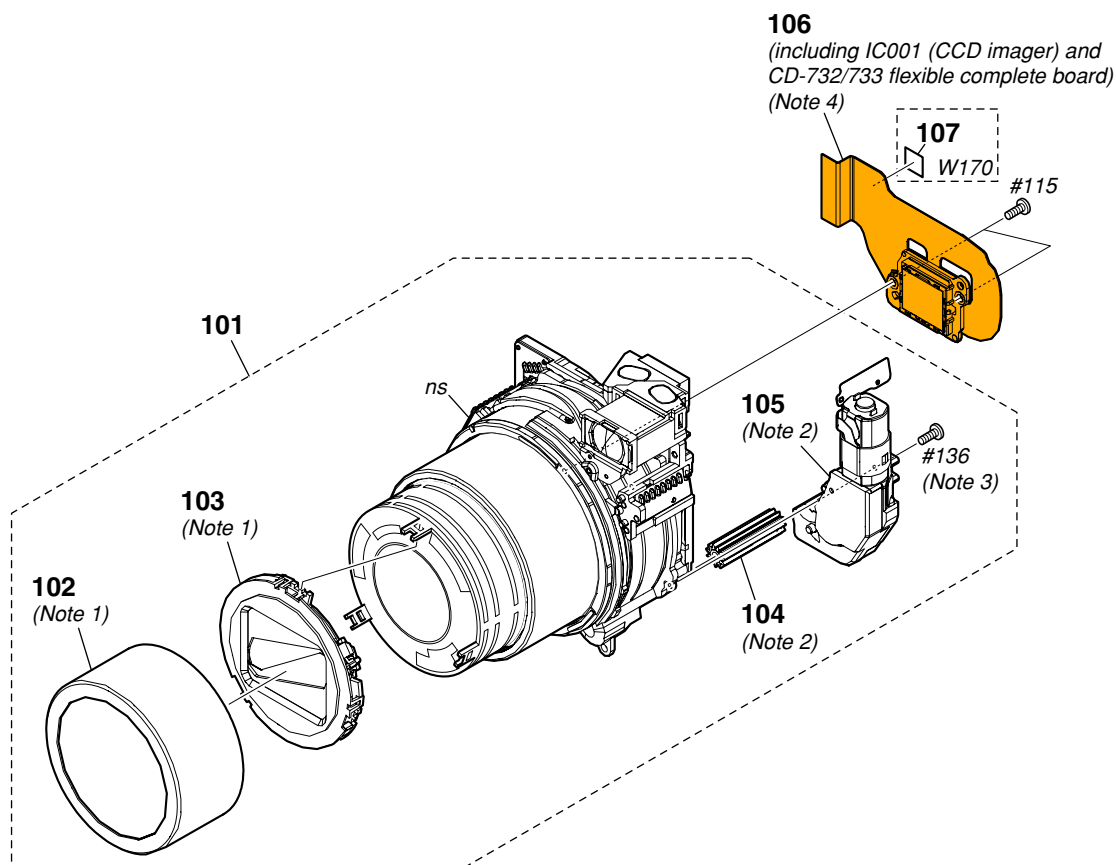
5-1-2. MAIN FRAME SECTION

Ref. No.	Part No.	Description
51	3-300-532-01	SCREW, TRIPOD
* 52	3-298-230-11	TAPE (N2)
53	3-300-529-01	FRAME, MAIN
* 54	3-093-800-01	GASKET (230)
55	1-875-540-11	SW-533 FLEXIBLE BOARD
56	A-1528-434-A	SW-529 BOARD, COMPLETE
* 57	3-289-767-01	SHEET, ZOOM BLIND

Ref. No.	Part No.	Description
58	3-289-762-01	DIAL, MODE
59	3-083-884-01	TAPE (LS)
* 60	3-300-526-01	SHEET, LCD RADIATION
LCD901	1-802-585-11	LCD MODULE (LS027A3DC01)
#20	2-635-591-31	SCREW (M1.4), NEW TRUSTAR P2 (Silver)

HARDWARE LIST

5-1-3. LENS SECTION

ns: not supplied

Note 1: Refer to "2-3. Barrier Assy Replacing Method" on page 2-6 when replace the barrier assy.

Note 1: バリア組立を交換する際は，2-6ページの「2-3. Barrier Assy Replacing Method」を参照してください。

Note 2: Refer to "2-4. Zoom Motor Replacing Method" on page 2-8 when replace the zoom gear block.

Note 2: ズームギアブロックを交換する際は，2-8ページの「2-4. Zoom Motor Replacing Method」を参照してください。

Note 3: Tightening torque = 0.098 ± 0.01 N•m (1.0 ± 0.1 kgf•cm)

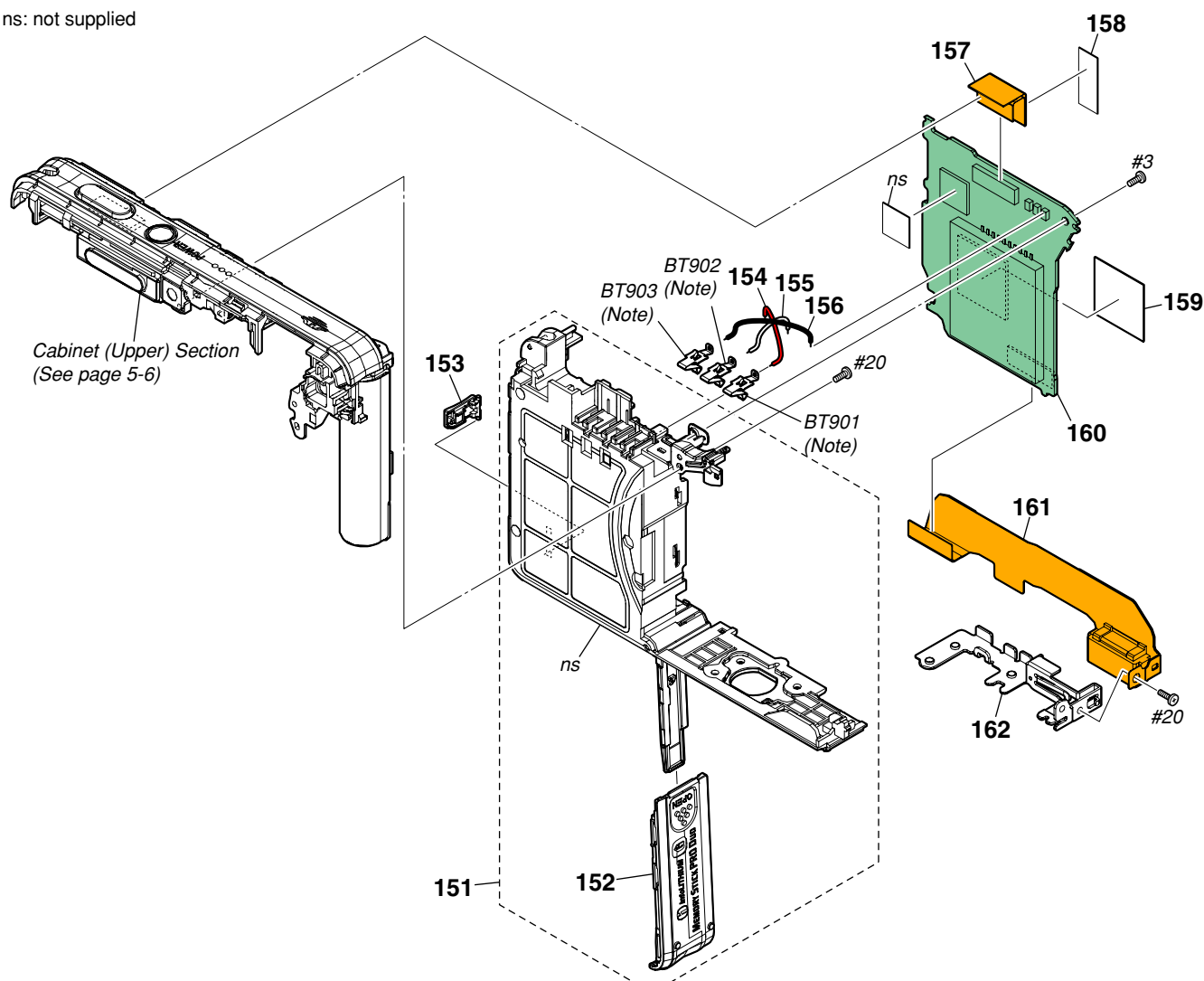
Note 3: 締め付けトルク＝0.098±0.01N•m（1.0±0.1 kgf•cm）

Note 4: Be sure to read "Precautions for Replacement of Imager" on page 4-2.

Note 4: イメージャの交換時は，4-3ページの「イメージャ交換時の注意」を必ずお読みください。

Ref. No.	Part No.	Description
101	1-788-689-21	OPTICAL UNIT (BE002)
102	3-298-356-01	RING (A), ORNAMENTAL (Note 1)
103	A-1526-403-A	BARRIER ASSY (Note 1)
104	3-298-355-01	GEAR, NARUTO (Note 2)
105	1-480-766-11	GEAR BLOCK, ZOOM (BE002) (Note 2)
106	A-1541-675-A	CCD BLOCK ASSY (S) (including IC001 (CCD imager) and CD-733 flexible complete board) (Note 4) (W170)
106	A-1541-676-A	CCD BLOCK ASSY (S) (including IC001 (CCD imager) and CD-732 flexible complete board) (Note 4) (W150)
107	3-874-855-01	TAPE (CD) (W170)
#115	3-348-998-51	SCREW (M1.4X3.5), TAPPING, PAN (Silver)
#136	3-065-509-11	SCREW (M1.4), TAPPING (Black) (Note 3)

5-1-4. BT HOLDER SECTION

ns: not supplied

Note: Refer to “HELP 7: Installation method of battery terminal board” when changing the battery terminal board.

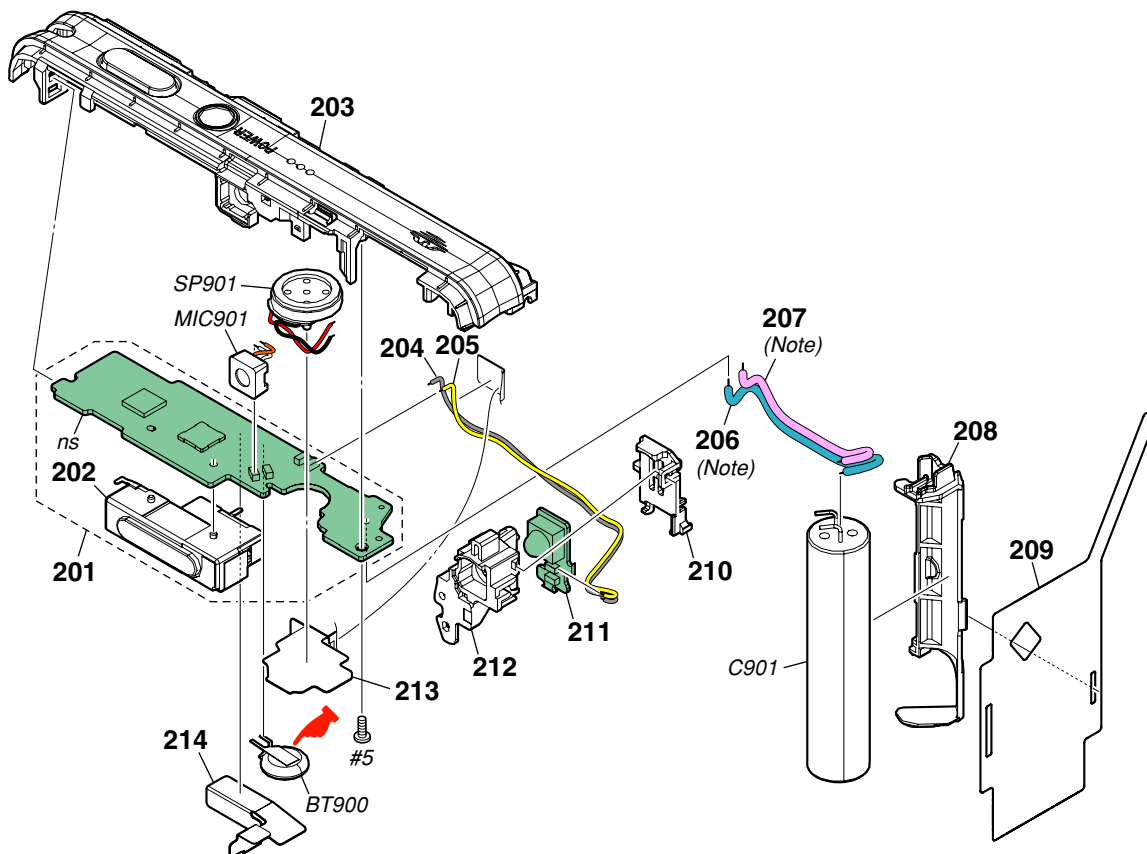
Note: バッテリ端子板を交換する際は，「HELP 7: Installation method of battery terminal board」を参照してください。

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
151	X-2189-971-1	HOLDER ASSY, BT (SILVER)
151	X-2189-972-1	HOLDER ASSY, BT (BLACK)
151	X-2189-973-1	HOLDER ASSY, BT (RED)
151	X-2189-974-1	HOLDER ASSY, BT (GOLD)
* 152	3-288-271-01	LID, BT (SILVER)
* 152	3-288-271-11	LID, BT (BLACK)
* 152	3-288-271-41	LID, BT (RED)
* 152	3-288-271-51	LID, BT (GOLD)
153	3-300-550-01	LID, DC
⚠154	1-965-766-11	HARNESS (HN-067) (Red)
⚠155	1-965-767-11	HARNESS (HN-068) (White)
⚠156	1-965-768-11	HARNESS (HN-069) (Black)

Ref. No.	Part No.	Description
⚠157	1-875-250-11	FP-866 FLEXIBLE BOARD
* 158	3-298-230-11	TAPE (N2)
159	3-870-596-01	SHEET, SY RADIATION
160	A-1528-438-A	SY-194 BOARD, COMPLETE (SERVICE) (W170)
160	A-1528-440-A	SY-194 BOARD, COMPLETE (SERVICE) (W150)
161	A-1528-433-A	MC-191 FLEXIBLE BOARD, COMPLETE
162	3-300-534-01	PLATE, MULTI FIXED
⚠BT901	1-780-456-21	TERMINAL BOARD, BATTERY (Note)
⚠BT902	1-780-456-21	TERMINAL BOARD, BATTERY (Note)
⚠BT903	1-780-456-21	TERMINAL BOARD, BATTERY (Note)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#20	2-635-591-31	SCREW (M1.4), NEW TRUSTAR P2 (Silver)

5-1-5. CABINET (UPPER) SECTION

ns: not supplied

: BT900 (LITHIUM RECHARGEABLE BATTERY)
Board on the mount position.
(See page 4-23)

Note: Refer to “HELP 4: Harness (HN-063/064)/Capacitor Sheet” when replace harness (HN-063/064).

Note: ハーネス（HN-063/064）を交換する際は，「HELP 4: Harness (HN-063/064)/Capacitor Sheet」を参照してください。

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
⚠201	A-1528-432-A	ST-180 BOARD, COMPLETE
⚠*202	1-480-482-11	FLASH UNIT
203	X-2189-937-1	RELEASE ASSY
204	1-965-683-11	HARNESS (HN-062) (Gray)
205	1-965-682-11	HARNESS (HN-061) (Yellow)
206	1-965-733-11	HARNESS (HN-064) (Blue) (Note)
207	1-965-732-11	HARNESS (HN-063) (Pink) (Note)
208	3-300-531-01	HOLDER, CAPACITOR
209	3-300-535-01	SHEET, CAPACITOR
210	3-300-533-01	RETAINER, AF
211	A-1528-435-A	AF-113 BOARD, COMPLETE
212	3-300-530-01	HOLDER, AF
213	3-300-643-01	SHEET, SP INSULATING
214	3-300-642-01	SHEET, ST INSULATING
⚠BT900	1-756-710-12	LITHIUM RECHARGEABLE BATTERY
⚠C901	1-114-592-11	ELECT 87uF 315V
MIC901	1-542-721-21	MICROPHONE BLOCK
SP901	1-826-403-61	LOUDSPEAKER (1.0CM)
#5	3-080-204-01	SCREW, TAPPING, P2 (Black)

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1528-435-A	AF-113 BOARD, COMPLETE			
		**********************			
		< DIODE >			
* D201	6-501-861-01	DIODE CL-360S-TD4-X-TL (SELF-TIMER/ SMILE SHUTTER/AF ILLUMINATOR)			

Ref. No.	Part No.	Description			
	A-1541-676-A	CCD BLOCK ASSY (S) (Note)			
	(Not supplied)	CD-732 FLEXIBLE BOARD, COMPLETE (W150)			
		*******************************			

(IC001 (CCD imager) and CD-732 flexible complete board are not supplied, but there are included in CCD block assy(S).)

Ref. No.	Part No.	Description			
		< CAPACITOR >			
C005	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C009	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
* C010	1-114-582-11	CERAMIC CHIP	0.1uF	10%	16V
		< IC >			
IC001	(Not supplied)	ICX636EQP-H (Note)			
		(IC001 is supplied including in the CCD block assy(S).)			

Ref. No.	Part No.	Description			
	A-1541-675-A	CCD BLOCK ASSY (S) (Note)			
	(Not supplied)	CD-733 FLEXIBLE BOARD, COMPLETE (W170)			
		*******************************			

(IC001 (CCD imager) and CD-733 flexible complete board are not supplied, but there are included in CCD block assy(S).)

Ref. No.	Part No.	Description			
		< CONNECTOR >			
* C005	1-114-582-11	CERAMIC CHIP	0.1uF	10%	16V
C006	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C008	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< IC >			
IC001	(Not supplied)	ICX665SQP-13 (Note)			
		(IC001 is supplied including in the CCD block assy(S).)			

Ref. No.	Part No.	Description			
	A-1528-433-A	MC-191 FLEXIBLE BOARD, COMPLETE			
		*******************************			

(CN001 (multi connector) is not supplied, but this is included in MC-191 flexible complete board.)

Ref. No.	Part No.	Description			
		< CONNECTOR >			
CN001	(Not supplied)	CONNECTOR, MULTIPLE (SOCKET) (MULTI CONNECTOR)			

(CN001 (multi connector) is supplied including in MC-191 flexible complete board.)

Ref. No.	Part No.	Description			
		< LINE FILTER >			
LF001	1-457-223-11	COMMON MODE CHOKE COIL			
		< RESISTOR >			
R004	1-218-953-11	RES-CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			
⚠	A-1528-432-A	ST-180 BOARD, COMPLETE			
		**********************			

(BT900 (lithium battery) is not included in ST-180 complete board.)

Ref. No.	Part No.	Description			
⚠*	1-480-482-11	FLASH UNIT			
		< BATTERY >			
⚠BT900	1-756-710-12	LITHIUM RECHARGEABLE BATTERY			
		< CAPACITOR >			
C001	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C002	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
⚠*C005	1-112-832-21	CERAMIC CHIP	0.033uF	10%	250V
C006	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
* C008	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
		< CONNECTOR >			
* CN002	1-817-391-52	CONNECTOR, FPC (ZIF) 31P			
		< DIODE >			
⚠D001	6-501-096-01	DIODE CRF02 (TE85R)			
D003	6-500-619-01	DIODE RB520S-40TE61			
D101	6-500-594-01	DIODE CL-196SYG-CD-T (AE/AF LOCK)			
* D102	6-502-311-01	DIODE LNJ426W830S0 (FLASH CHARGE/RECORD)			
D103	6-500-594-01	DIODE CL-196SYG-CD-T (POWER)			
		< IC >			
IC001	6-707-555-01	IC TPS65552RGTR			
		< COIL >			
* L001	1-400-820-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
⚠*Q001	6-551-676-01	TRANSISTOR	CY25BAJ-8F-T13-G12		
		< RESISTOR >			
R001	1-218-989-11	RES-CHIP	1M	5%	1/16W
R002	1-218-937-11	RES-CHIP	47	5%	1/16W
⚠R003	1-216-121-11	RES-CHIP	1M	5%	1/10W
R005	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

Note: Be sure to read “Precuations for Replacement of Imager” on page 4-2.

Note: イメージャの交換時は4-3ページの“イメージャ交換時の注意”を必ずお読みください。

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
		< SWITCH >
S101	1-786-819-22	TACTILE SWITCH (SHUTTER)
S102	1-771-844-21	SWITCH, TACTILE (SMD) (POWER)
		< TRANSFORMER >
⚠T001	1-445-108-21	TRANSFORMER, D.C-D.C CONVERTER

Ref. No.	Part No.	Description
	A-1528-434-A	SW-529 BOARD, COMPLETE **********************

(S010 (Mode dial) is not supplied, but this is included in SW-529 complete board.)

Ref. No.	Part No.	Description
		< CONNECTOR >
* CN001	1-820-634-51	CONNECTOR, FPC (LIF (NON-ZIF))
		< COMPOSITION CIRCUIT BLOCK >
RB001	1-234-376-11	RES, NETWORK 2.2K (1005X4)
RB002	1-234-376-11	RES, NETWORK 2.2K (1005X4)
RB003	1-234-376-11	RES, NETWORK 2.2K (1005X4)
RB004	1-234-376-11	RES, NETWORK 2.2K (1005X4)
		< SWITCH >
* S001	1-786-914-31	SWITCH, TACTILE (MENU)
* S002	1-786-914-31	SWITCH, TACTILE (HOME)
* S003	1-786-914-31	SWITCH, TACTILE (W (ZOOM))
* S004	1-786-914-31	SWITCH, TACTILE (◀ (MACRO))
* S005	1-786-914-31	SWITCH, TACTILE (▼ (SELF-TIMER))
* S006	1-786-914-31	SWITCH, TACTILE (▲ (DISP))
* S007	1-786-914-31	SWITCH, TACTILE (●)
* S008	1-786-914-31	SWITCH, TACTILE (T (ZOOM))
* S009	1-786-914-31	SWITCH, TACTILE (▶ (FLASH))
S010	(Not supplied)	SWITCH, ROTARY (MODE DIAL)

(S010 (Mode dial) is supplied including in SW-529 complete board.)

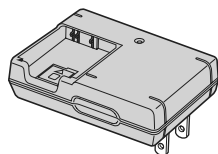
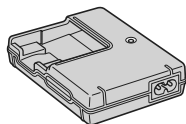
Ref. No.	Part No.	Description
* S011	1-786-914-31	SWITCH, TACTILE (SLIDESHOW)
* S012	1-786-914-31	SWITCH, TACTILE (►)

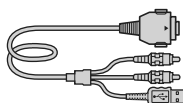
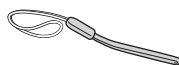
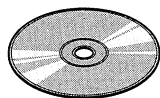
Electrical parts list of the SY-194 board is not shown.
Page 5-9 to 5-12 are not shown.

• Refer to page 5-1 for mark ⚠.

Ver. 1.2 2009.06
The changed portions from
Ver. 1.1 are shown in blue.

Checking supplied accessories.

Note: This item is supplied with the unit as an accessory, but is not prepared as a service part.

Battery Charger
BC-CSGB/BC-CSGC
⚠ 1-480-175-11 (J)
⚠ 1-480-175-21 (US, CND)

Battery Charger
BC-CSGB/BC-CSGC
⚠ 1-480-175-31
(EXCEPT US, CND, J)

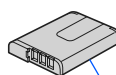
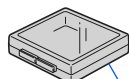
Power Cord
⚠ 1-555-074-91 (AUS)
⚠ 1-783-952-61 (AR)
⚠ 1-792-549-41 (JE)
⚠ 1-824-910-71 (AEP, E)
⚠ 1-832-121-31 (CH)
⚠ 1-827-269-12 (UK, HK)
⚠ 1-833-892-21 (KR)
⚠ 1-835-434-11 (TH)

USB, A/V Cable for
Multi-use Terminal
1-834-813-11

Wrist Strap
2-050-981-01

CD-ROM
"Cyber-shot application software"
"Cyber-shot Handbook"
"Cyber-shot Step-up Guide"
3-294-892-01 (EXCEPT J)
3-294-893-01 (J)

Cyber-shot Handbook (PDF)

The CD-ROM supplied contains all of language version of the Cyber-shot Handbook (PDF) for printing.
- The printed matter is not supplied. If required, please order it with the part number below.
- (Only for destination Japanese model)
日本国内については日本語のみが印刷での部品供給可能です。

* 3-294-896-01 (JAPANESE)
* 3-294-896-11 (ENGLISH)
* 3-294-896-21 (FRENCH)
* 3-294-896-31 (ITALIAN)
* 3-294-896-41 (SPANISH)
* 3-294-896-51 (PORTUGUESE)
* 3-294-896-61 (GERMAN)
* 3-294-896-71 (DUTCH)
* 3-294-896-81 (TRADITIONAL CHINESE)
* 3-294-896-91 (SIMPLIFIED CHINESE)
* 3-294-897-11 (RUSSIAN)
* 3-294-897-21 (ARABIC)
* 3-294-897-31 (PERSIAN)
* 3-294-897-41 (KOREAN)
* 3-294-897-51 (POLISH)
* 3-294-897-61 (CZECH)
* 3-294-897-71 (HUNGARIAN)
* 3-294-897-81 (SLOVAK)
* 3-294-897-91 (SWEDISH)
* 3-294-898-11 (FINNISH)
* 3-294-898-21 (NORWEGIAN)
* 3-294-898-31 (DANISH)
* 3-294-898-41 (THAI)
* 3-294-898-51 (MALAY)
* 3-294-898-61 (TURKISH)
* 3-294-898-71 (GREEK)
* 3-294-898-81 (UKRAINIAN)

Conversion (2P) Adaptor
⚠ 1-569-008-12 (E: NTSC)

Conversion (2P) Adaptor
⚠ 1-569-007-12 (JE)

Rechargeable Battery Pack
NP-BG1/Battery Case
⚠ A-1137-161-A (J)
⚠ A-1567-198-A (US, CND)
⚠ A-1641-431-A (EXCEPT US, CND, J)

Instruction Manual
3-294-899-01 (JAPANESE) (J)
3-294-899-11 (ENGLISH) (CND, AEP, UK, E, HK, AUS, TH, JE)
3-294-899-21 (FRENCH, ITALIAN) (CND, AEP)
3-294-899-31 (SPANISH, PORTUGUESE) (AEP, E, AR, JE)
3-294-899-41 (GERMAN, DUTCH) (AEP)
3-294-899-51 (TRADITIONAL CHINESE, SIMPLIFIED CHINESE) (E, HK, JE)
3-294-899-61 (RUSSIAN, UKRAINIAN) (AEP)
3-294-899-71 (ARABIC, PERSIAN) (E)
3-294-899-81 (KOREAN) (KR, JE)
3-294-899-91 (POLISH, CZECH) (AEP)
3-294-900-11 (HUNGARIAN, SLOVAK) (AEP)
3-294-900-21 (SWEDISH, FINNISH) (AEP)
3-294-900-31 (NORWEGIAN, DANISH) (AEP)
3-294-900-41 (THAI, MALAY) (E)
3-294-900-51 (TURKISH, GREEK) (AEP)
3-294-900-61 (ENGLISH, SPANISH) (US)
3-294-900-71 (SIMPLIFIED CHINESE) (CH)
3-294-900-81 (THAI) (TH)

• Refer to page 5-1 for mark ⚠.

DSC-W150/W170

SONY®

LEVEL 2

SERVICE MANUAL

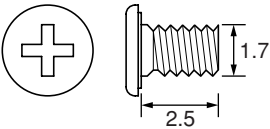
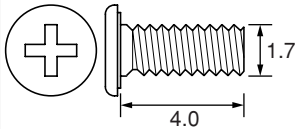
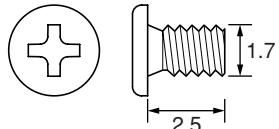
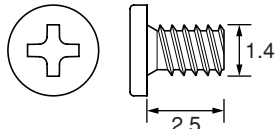
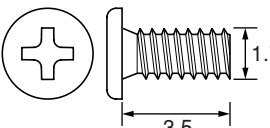
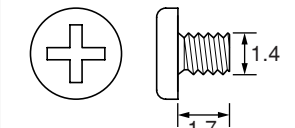
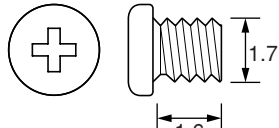
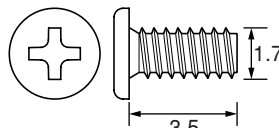
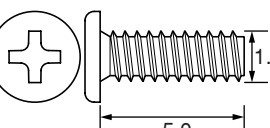
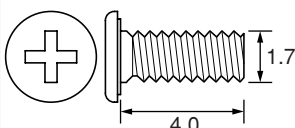
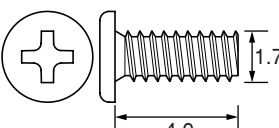
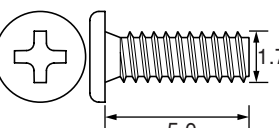
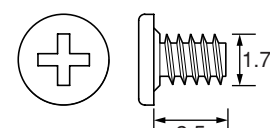
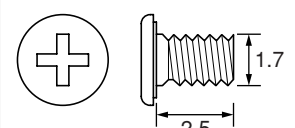
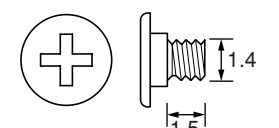
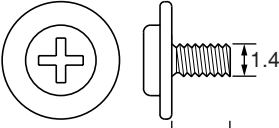
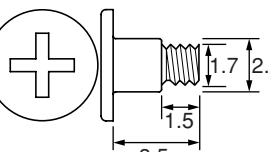
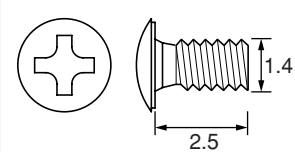
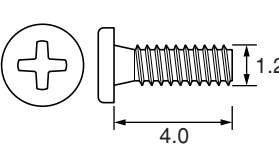
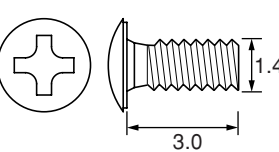
Ver. 1.2 2009.06

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Argentine Model
Brazilian Model
Thai Model
Japanese Model
Tourist Model

SUPPLEMENT-1

File this supplement with the service manual.
(09-049)

- **Change of Repair Parts**
- **Revision of Accessories**

Note: Please refer to Ver. 1.2 of SERVICE MANUAL (9-852-296-33) for the revision of accessories.

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

Page	Former			New		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
5-7	**ST-180 Board**			**ST-180 Board**		
			< DIODE >			< DIODE >
	D101	6-500-594-01	DIODE CL-196SYG-CD-T (AE/AF LOCK)	* D101	6-502-336-01	DIODE LNJ326W831S0 (AE/AF LOCK)

Sony EMCS Co.

2009F0500-1

Published by Kohda TEC

HARDWARE LIST (1/7)

#1: M1.7 X 2.5
(Black)
2-635-562-11

#2: M1.7 X 4.0
(Black)
2-635-562-31

#3: M1.7 X 2.5
(Red)
2-660-401-01

#4: M1.4 X 2.5 (Tapping)
(Dark Silver)
3-348-998-81

#5: M1.7 X 3.5 (Tapping)
(Black)
3-080-204-01

#6: M1.4 X 1.7
(Silver)
2-598-474-01

#7: M1.7 X 1.6
(Black)
7-627-552-18

#8: M1.7 X 3.5 (Tapping)
(Silver)
3-078-890-01

#9: M1.7 X 5.0 (Tapping)
(Silver)
3-078-890-21

#10: M1.7 X 4.0
(Silver)
2-599-475-31

#11: M1.7 X 4.0 (Tapping)
(Silver)
3-078-890-11

#12: M1.7 X 5.0 (Tapping)
(Black)
3-080-204-21

#13: M1.7 X 2.5 (Tapping)
(Silver)
3-085-397-01

#14: M1.7 X 2.5
(Silver)
2-599-475-11

#15: M1.4 X 1.5
(Silver)
3-062-214-01

#16: M1.4 X 2.5
(Silver)
2-586-337-01

#17: M1.7 X 1.5
(Silver)
2-586-389-01

#18: M1.4 X 2.5
(Silver)
2-635-591-21

#19: M1.2 X 4.0 (Tapping)
(Red)
3-086-156-21

#20: M1.4 X 3.0
(Silver)
2-635-591-31

HARDWARE LIST (2/7)

HARDWARE LIST (3/7)

#41: M3.0 X 8.0 (Tapping)
(Silver)
3-065-748-01

#42: M2.0 X 4.0 (Tapping)
(Silver)
7-628-253-00

#43: M1.7 X 4.0
(Red)
2-660-401-31

#44: M1.7 X 3.0 (Tapping)
(Silver)
3-078-890-61

#45: M1.4 X 2.5
(Silver)
2-587-151-01

#46: M1.7 X 3.0
(Red)
2-660-401-11

#47: M1.4 X 3.0 (Tapping)
(Silver)
2-665-774-01

#48: M1.7 X 2.5
(Silver)
3-973-497-91

#49: M2.0 X 4.0
(Black)
2-630-005-31

#50: M2.0 X 3.0
(Red)
2-891-494-11

#51: M2.0 X 2.5
(Silver)
3-073-686-01

#52: M2.0 X 4.0 (Tapping)
(Black)
3-080-206-11

#53: M2.0 X 5.0 (Tapping)
(Black)
3-080-206-21

#54: M1.75 X 6.0 (Tapping)
(Black)
3-318-203-11

#55: M2.0 X 4.0
(Silver)
2-655-582-11

#56: M2.0 X 3.5
(Silver)
3-067-187-11

#57: M1.7 X 4.0
(Black)
7-627-852-18

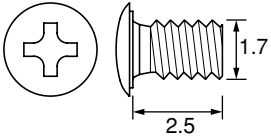
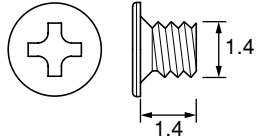
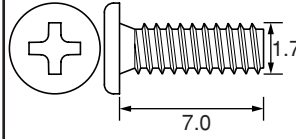
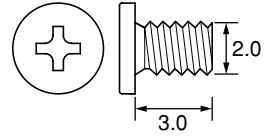
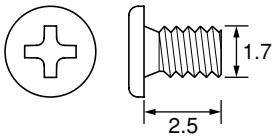
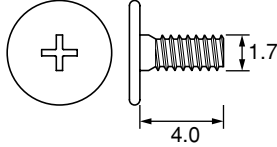
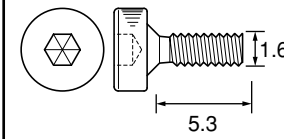
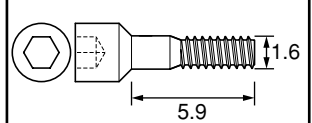
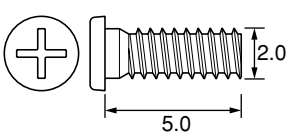
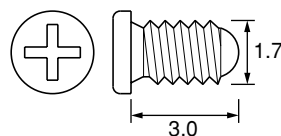
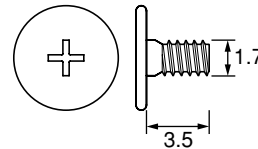
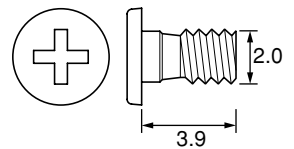
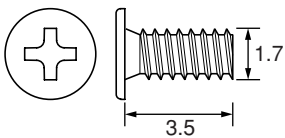
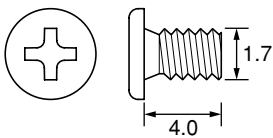
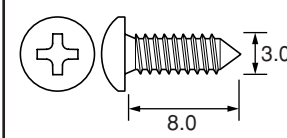
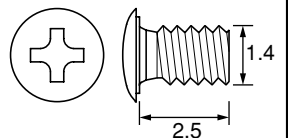
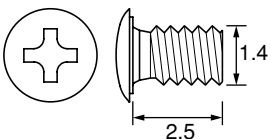
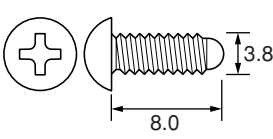
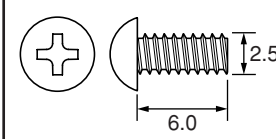
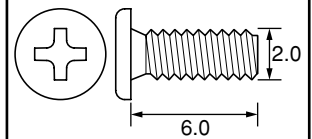
#58: M2.0 X 6.0 (Tapping)
(Silver)
3-719-408-11

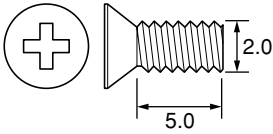
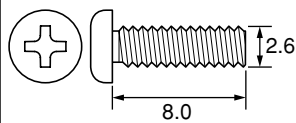
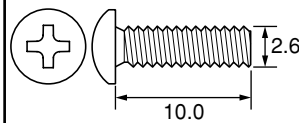
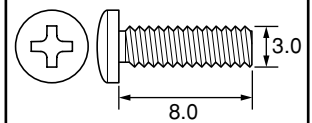
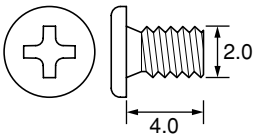
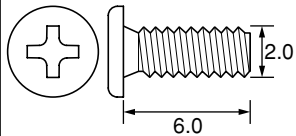
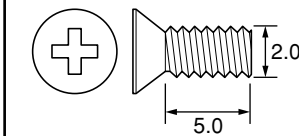
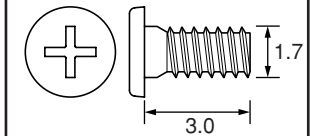
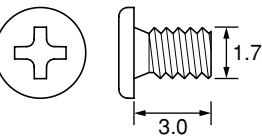
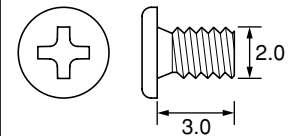
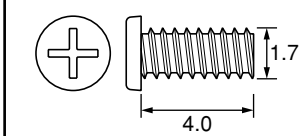
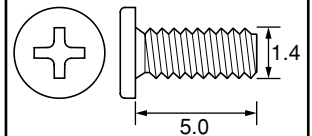
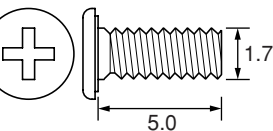
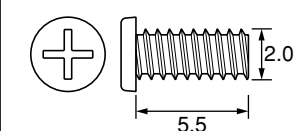
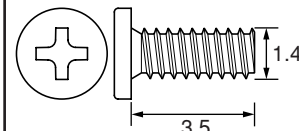
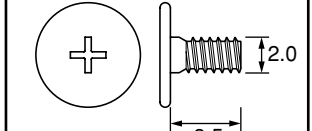
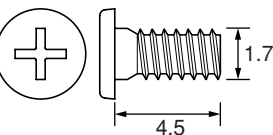
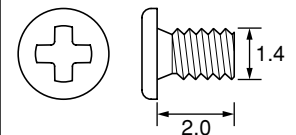
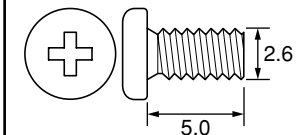
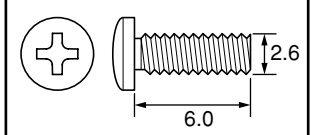
#59: M2.0 X 5.0 (Tapping)
(Silver)
3-080-205-21

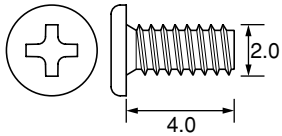
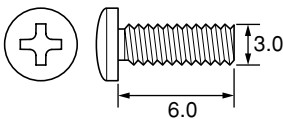
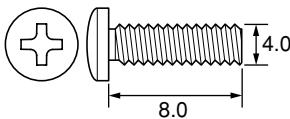
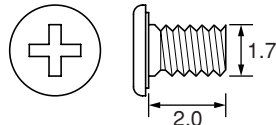
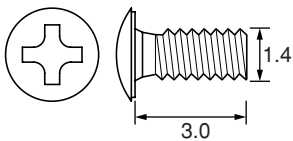
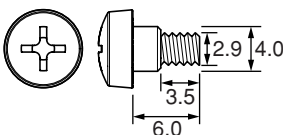
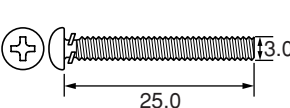
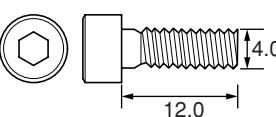
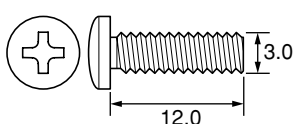
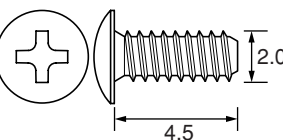
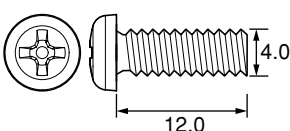
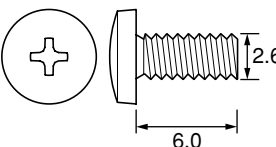
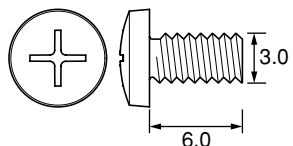
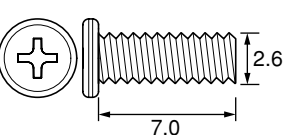
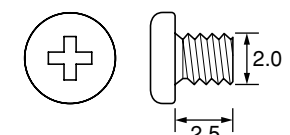
#60: M2.6 X 5.0
(Black)
3-061-062-11

HARDWARE LIST (4/7)

HARDWARE LIST (5/7)

#81: M1.7 X 2.5
(Silver)
2-515-756-01

#82: M1.4 X 1.4
(Silver)
3-272-251-01

#83: M1.7 X 7.0 (Tapping)
(Black)
3-080-204-41

#84: M2.0 X 3.0
(Silver)
3-072-453-11

#85: M1.7 X 2.5
(Black)
2-515-483-11

#86: M1.7 X 4.0 (Tapping)
(Silver)
2-695-434-21

#87: M1.6 X 5.3
(Black)
2-689-328-01

#88: M1.6 X 5.9 (Tapping)
(Silver)
2-689-015-01

#89: M2.0 X 5.5 (Tapping)
(Silver)
2-695-575-01

#90: M1.7 X 3.0
(Silver)
3-271-395-01

#91: M1.7 X 3.0 (Tapping)
(Silver)
2-695-434-11

#92: M2.0 X 3.9
(Black)
3-268-954-01

#93: M1.7 X 3.5 (Tapping)
(Silver)
3-254-082-01

#94: M1.7 X 4.0
(Black)
2-515-483-31

#95: M3.0 X 8.0 (Tapping)
(Black)
7-685-646-79

#96: M1.4 X 2.5
(Silver)
2-587-151-21

#97: M1.4 X 2.5
(Black)
2-662-396-31

#98: M3.0 X 8.0
(Silver)
3-077-331-01

#99: M2.5 X 6.0 (Tapping)
(Silver)
3-776-750-02

#100: M2.0 X 6.0
(Black)
3-080-203-51

HARDWARE LIST (6/7)

#101: M2.0 X 5.0
(Silver)
7-621-555-39

#102: M2.6 X 8.0
(Black)
7-621-284-30

#103: M2.6 X 10.0
(Silver)
7-685-794-09

#104: M3.0 X 8.0
(Black)
7-682-548-09

#105: M2.0 X 4.0
(Red)
2-891-494-31

#106: M2.0 X 6.0
(Black)
3-713-786-11

#107: M2.0 X 5.0
(Silver)
3-032-750-01

#108: M1.7 X 3.0 (Tapping)
(Black)
2-695-430-01

#109: M1.7 X 3.0
(Black)
2-515-483-21

#110: M2.0 X 3.0
(Black)
2-630-005-21

#111: M1.7 X 4.0 (Tapping)
(Black)
2-887-124-01

#112: M1.4 X 5.0
(Black)
2-178-410-11

#113: M1.7 X 5.0
(Black)
2-635-562-41

#114: M2.0 X 5.5 (Tapping)
(Silver)
2-698-464-01

#115: M1.4 X 3.5 (Tapping)
(Silver)
3-348-998-51

#116: M2.0 X 3.5 (Tapping)
(Silver)
2-695-435-01

#117: M1.7 X 4.5 (Tapping)
(Silver)
2-695-429-31

#118: M1.4 X 2.0
(Black)
2-655-580-01

#119: M2.6 X 5.0
(Black)
7-627-556-58

#120: M2.6 X 6.0
(Silver)
7-621-770-67

HARDWARE LIST (7/7)

#121: M2.0 X 4.0 (Tapping)
(Silver)
3-080-205-11

#122: M3.0 X 6.0
(Black)
7-682-547-09

#123: M4.0 X 8.0
(Black)
7-682-561-09

#124: M1.7 X 2.0
(Silver)
2-599-475-01

#125: M1.4 X 3.0
(Black)
3-291-847-01

#126: M2.9 X 3.5
(Black)
3-292-616-01

#127: M3.0 X 25.0
(Black)
7-682-654-09

#128: M4.0 X 12.0
(Black)
3-452-472-01

#129: M3.0 X 12.0
(Black)
7-682-550-09

#130: M2.0 X 4.5 (Tapping)
(Silver)
3-732-817-11

#131: M4.0 X 12.0
(Silver)
3-452-471-01

#132: M2.6 X 6.0
(Black)
4-673-655-01

#133: M3.0 X 6.0
(Black)
3-452-484-01

#134: M2.6 X 7.0
(Black)
3-299-572-01

#135: M2.0 X 2.5
(Black)
7-627-553-28

#136: M1.4 X 4.0 (Tapping)
(Black)
3-065-509-11

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2008.03	Official Release	—	—
1.1	2008.05	Revised-1 (A1 DI08-061)	• Addition of Thai Model S.M. revised: Page 3, Page 5-1, Page 5-13	Yes
1.2	2009.06	Supplement-1 (S1 09-049)	• Change of Repair Parts • Revision of Accessories S.M. revised: Page 5-13	Yes